

1938
(Midland)



COUNTY BOROUGH OF NORTHAMPTON

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1938

By **STEPHEN ROWLAND**, M.D.Edin., D.P.H.Camb.,
Medical Officer of Health,
School Medical Officer, and
Chief Tuberculosis Officer.



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*To the Mayor, Aldermen, and Councillors of the County Borough of
Northampton.*

MR. MAYOR, LADIES, AND GENTLEMEN,

I have the honour to present the Annual Report of the Medical Officer of Health for the year 1938, which for statistical purposes embraces a period of fifty-two weeks ended on 31st December, 1938. This is the sixty-fifth report of the series.

The report follows the lines of its predecessors and is not a "survey report."

The birth-rate was 12·5 per thousand living, the corresponding figure for England and Wales being 15·1. (*See page 10*).

The death-rate, which for the years 1936 and 1937 had caused me some little anxiety by its being somewhat above our usual figure, fell to 11·1 per thousand living (our third lowest on record), compared with 11·6 for England and Wales. The areal comparability factor remaining the same as in the previous year (0·96), the adjusted death-rate was 10·7, a low rate for an industrial town. (*See page 10*).

The infantile death-rate was 46·6 per thousand live births registered (our fourth lowest), compared with 53 for England and Wales and 57 for the great towns. (*See pages 60 and 81*).

An outstanding feature of 1938 was the absence of a maternal death amongst Borough mothers, a circumstance of which we have no similar record. (*See page 60*).

The "zymotic death-rate" was 0·15 per thousand living. (*See page 50*).

Although the number of new cases of tuberculosis notified in the Borough during 1938 shewed a considerable fall on those for 1937, the death-rate from tuberculosis rose from 0·72 (pulmonary 0·62, non-pulmonary 0·10) to 0·84 (pulmonary 0·72, other forms 0·12). It would seem that the downward trend in the tuberculosis death-rate, which has been such a marked feature during the last quarter, or I might say half, century is slowing up, at least for a time. (*See pages 58 and 65*).

There was another slight and temporary recrudescence of diphtheria and scarlet fever during the year. (*See page 53*).

Slum clearance proceeded as usual. Seventeen areas containing 149 houses were represented late in the year. (*See page 34*).

The drought which prevailed during the first half of 1938 caused the temporary pumping stations to be brought into action again, but in spite of this the Town's water supply was maintained at a high standard of bacteriological purity. (*See page 24*).

One of the outstanding incidents of the year was the extensive outbreak of food poisoning following the Police Dinner. (*See pages 43 to 48*).

We have recently completed a survey of milk distribution in the Borough with a view to ascertaining what proportion of the milk is heat treated. It was also found that there had been an increase in the daily consumption of milk in Northampton since our last survey. (*See page 38*).

Attention is called to the six months' health campaign held from October, 1937, to March, 1938. (*See page 24*).

The fall of the death-rate to a figure well below that for England and Wales, coupled with the continued low infantile and "zymotic" death-rates and the total absence of a maternal death over a period far exceeding that under review, would appear to be grounds for believing the sanitary circumstances of Northampton are satisfactory.

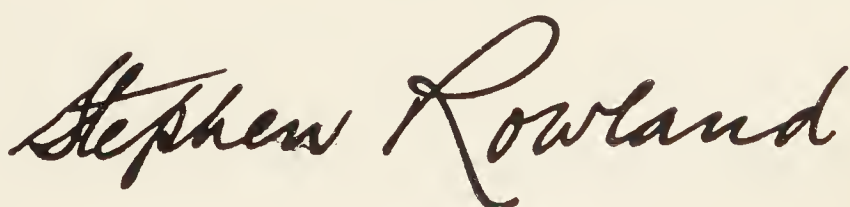
Latterly a considerable amount of my time has been diverted from what might be called my proper function to air raid precautions work, not to the well-being of the former.

I have again to acknowledge the loyal assistance and support accorded to me by all members of my Staff during the year, support without which the efficiency of the Department could not continue.

I am,

Mr. Mayor, Ladies, and Gentlemen,

Your obedient Servant,



Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
GUILDHALL, NORTHAMPTON.
MAY, 1939.

PUBLIC HEALTH STAFF

<i>Medical Officer of Health, School Medical Officer, and Chief Tuberculosis Officer</i>	..	..	..	STEPHEN ROWLAND, M.D. Edin., D.P.H. Camb.
<i>Tuberculosis Officer</i>	..	..	..	NORMAN B. LAUGHTON, M.B., Ch.B., D.P.H.
<i>Assistant Medical Officer for Maternity and Child Welfare</i>				MISS EVELYN F. BEBBINGTON, M.B., Ch.B., D.P.H., M.R.C.S., L.R.C.P.
<i>Sanitary Inspectors</i>	..	..	..	W. J. BARKER*† (Chief Inspector and Rat Officer) J. WALKER*† (also Inspector of Common Lodging Houses) J. BROWN*† (Meat and Food Inspector) B. KNOWLES*† T. L. BOAST*† S. A. TENCH* W. L. MONKS*† (also Inspector of Canal Boats) R. SPENCER*†
<i>Health Visitors</i>	..	..	..	MISS M. E. MOSSEY‡||§ MRS. F. H. SMITH‡||§ MISS F. M. V. BLYTHE BROWN‡|| MISS E. C. AGAR‡||¶ MISS R. M. BRADY‡||¶ MISS A. E. NORGATE‡||¶ MISS E. LEWIS‡||¶
<i>Tuberculosis Nurse</i>	..	..	..	MISS L. REESE||
<i>Matrons</i>	..	..	..	MISS M. E. NORMAN||§ (Harborough Road Infectious Diseases Hospital) MISS K. B. STONE||§ (Welford Road Tuberculosis Hospital)
<i>Clerks</i>	..	..	..	A. F. KNIGHT (Chief Clerk) S. J. KNIGHT (Tuberculosis Dispensary) H. T. BOSWELL MISS D. E. ADNITT (Infant Welfare Centre) S. E. MOORE S. J. DODD MISS G. E. WILLS (Infant Welfare Centre)
<i>Removal and Disinfecting Staff</i>	..		..	C. H. WILLIAMS A. W. BLASON R. G. A. BRITTEN
<i>Rat-catcher</i>	..	..	..	W. E. J. DUNKLEY

All the above are whole-time Officers. School Medical Staff is not included.

*Holds Inspector's Certificate of the Royal Sanitary Institute.

†Holds Certificate for Inspecting Meat and Other Foods.

‡Holds Certificate of the Central Midwives Board.

||General Trained Nurse.

§Fever Trained Nurse.

¶Holds Health Visitor's Certificate.

SUMMARY OF STATISTICS

Latitude.....	52° 14' North	Longitude.....	0° 54' West
Height of Guildhall above general mean sea level (in feet)			252
Area of Borough (in acres) as extended, 1st April, 1932			6,201
Population :—			
Census 1931 (before extension)			92,341
Census 1931 (including area added 1st April, 1932)			96,546
Registrar-General's Estimate at Mid-year 1938			96,540
Number of Inhabited Houses :—			
Census 1931			23,141
According to Rate Books (31st December, 1938)			28,400
Number of Families or Separate Occupiers (Census 1931) ...			24,966
Rateable Value (31st December, 1938)			£761,878
Yield of One Penny Rate (31st December, 1938)			£3,000

EXTRACTS FROM VITAL STATISTICS FOR THE YEAR 1938

		TOTAL.	M.	F.		
Live Births	Legitimate	1,165	594	571	} Birth-rate	12·5
	Illegitimate	38	21	17		
	Total	1,203	615	588		
Stillbirths	Legitimate	32	16	16	} Rate	0·35*
	Illegitimate	2	2	0		
	Total	34	18	16		
Deaths		1,071	558	513	—Death-rate	11·1
Adjusted Death-rate (Areal Comparability Factor 0·96)						10·7
Percentage of Total Deaths occurring in Public Institutions ..						48·6
Number of Women dying in, or in consequence of, Childbirth	(From Sepsis	0				0
	(From Other Causes	0				
Deaths of Infants under One Year of Age per 1,000 Live Births :—						
Legitimate..	47·2	Illegitimate..	26·3	Total		46·6
					NUMBER.	RATE.
“ Zymotic Deaths ”					14	0·15
Deaths from Measles					0	0·00
Deaths from Whooping Cough					0	0·00
Deaths from Diarrhœa (under two years of age)					6	†
Deaths from Respiratory Tuberculosis					69	0·72
Deaths from Other Tuberculous Diseases					12	0·12
Total Tuberculosis Deaths					81	0·84
Deaths from Cancer					157	1·63
Deaths from Influenza					7	0·07

*27·5 per 1,000 Total (Live and Still) Births Registered.

†5·0 per 1,000 Live Births Registered.

I.—STATISTICS AND SOCIAL CONDITIONS

Population

The Registrar-General estimated the resident population of the County Borough of Northampton at mid-year 1938 to be 96,540, an increase of 180 on his estimate for the previous year. It may not be out of place to remind readers that the Registrar-General's figure for the mid-year population is only an estimate. We shall not be able to get the exact figure until the next census, which is due in 1941.

The natural increase of the population, *i.e.*, the excess of live births over deaths, for 1938 was 132, or 1·37 per thousand living. Table 1 (page 91) gives the estimated population and the natural increase or decrease during each of the last ten years.

Births

1,203 live births (615 males, 588 females) were registered, giving a birth-rate of 12·5 per thousand of the estimated resident population, compared with 15·1 for England and Wales and 15·0 for the 126 county boroughs and great towns (including London). The local birth-rate shewed an increase of 0·1 per thousand, the number of births being six more than in 1937. Table 2 (page 91) gives the rates for the last decennium, compared with those for the country.

Thirty-eight (3·2 per cent.) of the births were illegitimate.

Stillbirths

There were thirty-four stillbirths registered, giving a rate of 0·35 per thousand, as compared with 0·60 for England and Wales. The rate expressed per thousand total births (including stillbirths) registered was 27·5 ; for England and Wales it was 38.

For further notes on stillbirths, *see* page 82.

Deaths

1,071 deaths (558 males, 513 females) were registered, equal to a death-rate of 11·1, compared with 11·6 for England and Wales and 11·7 for the great towns. Table 3 (page 91) gives the local and national death-rates for the last ten years.

The Northampton death-rate is the lowest for three years and has only been lower on two occasions (10·4 in 1921 and 10·9 in 1935), according to our records.

52·7 per cent. of the deaths related to elderly persons (aged sixty-five years and upwards).

627 persons, comprising residents and non-residents, died in local institutions, equivalent to 48·6 per cent. of the total deaths. The deaths of non-residents were transferred by the Registrar-General to their respective areas, whilst the deaths of Northampton residents which took place outside the Borough were credited to us as "inward transfers."

Eighty-seven deaths occurred for which no medical certificates of the causes of death were furnished. These included sixty-five inquests, fifteen coroner's certificates after post-

mortem examinations without inquests, and seven uncertified, or 8·1 per cent. of the nett deaths registered.

The adjusted death-rate for Northampton (calculated by multiplying the crude rate by the Registrar-General's areal comparability factor of 0·96) was 10·7. This factor has been based on the sex and age constitution of the local population at the 1931 Census ; its object is to modify the crude death-rate so as to make it comparable with the crude rate for the country as a whole or with the similarly adjusted death-rate for any other area.

Table C at the end of this report, giving the causes of death in different age-periods, was prepared in the Public Health Department from information supplied weekly by the local registrars. The classification agrees closely with the figures received from the Registrar-General on 1st May, 1939.

Nothing occurred during the year to produce any change in the social conditions in the Borough. While the boot trade, which provides such a large part of the employment for both sexes, was fairly well employed, there was nothing in the nature of a boom. The building trade remained busy and found work for a considerable number of men.

Social
Conditions

The Manager of the Local Employment Exchange, Ministry of Labour, has again kindly furnished information regarding unemployment in Northampton, from which the following particulars have been extracted :—

Unemploy-
ment

Average total live register for January, 1938 (including 1,930 temporarily stopped claim- ants and 269 non-claimants)	4,553
Total live register in July, 1938 (including 1,317 temporarily stopped persons and 261 non- claimants)	3,611
Total live register in December, 1938 (including 1,120 temporarily stopped persons and 242 non-claimants)	3,929

The figures shew a rise on those for 1937 and it is considered that national conditions have caused an increase to some extent all round. The trade of the Town generally is satisfactory. Outdoor work was considerably delayed during the severe frost experienced at Christmas time.

During the week ended 31st December, 1938, 78 men, on whom depended 43 women and 51 children, received unemployment relief from the Public Assistance Committee. These figures are about the same as those for the corresponding date in 1937.

The Borough Engineer has supplied the following information relating to the principal public works upon which unemployed labour was engaged :—

Duston Road Improvement ;
 Spencer Housing Estate ;
 Cattlemarket Improvement ;
 Billing Road Reconstruction ;
 Stimpson Avenue Reconstruction ;
 Military Road Reconstruction ;
 Phoenix Street Widening ;
 Castle Street Widening ;
 Little Cross Street Widening ;
 Bath Street Widening ;
 Abington Street Widening ;
 Fish Street Widening ;
 Dychurch Lane Widening ;
 Trinity Avenue and Kingsley Road Corner Improvement ;
 Barrack Road—Central Strip Reservation ;
 Greenwood Road Reconstruction ;
 Birchfield Road East Reconstruction ;
 Shakespeare Road Reconstruction ;
 Carey Street Reconstruction ;
 The Riding Reconstruction ;
 Kingsway and Welford Road Corner Improvement ;
 St. David's Housing Estate.

Meteorology

I have again to thank Mr. R. H. Primavesi for kindly supplying the data (*see* Table 4, page 92) from which these notes were compiled.

So far as rainfall was concerned, the year 1938 was the reverse of 1937, for whereas the first half of 1937 was abnormally wet, the earlier months of 1938 were remarkably dry, so that at the end of June the total rainfall for the half-year was 7·33 inches, or 3·62 inches below the average for the six months. This deficit was made good during the second half-year and the total rainfall for the twelve months amounted to 24·48 inches, or only 0·27 inch below the average for the last thirty-four years. The month with the greatest rainfall was August with 4·09 inches ; the driest was April, when only 0·08 inch was registered—the driest April in Northampton for at least thirty-four years. The heaviest fall in twenty-four hours occurred on 12th August when 1·65 inches were registered. The number of days on which a measurable amount of rain (at least 0·01 inch) fell was 175, compared with 178 for 1937.

The total hours of bright sunshine recorded was 1,320, which is about the average for the Midlands area. There would have been a deficiency of sunshine had it not been for the exceptional sunny periods of March and November. March,

with a record of 158 hours, was the third sunniest month of the year, beating August by twelve and July by as much as forty-two hours. There were sixty-eight hours of bright sunshine in November.

The highest shade temperature recorded was 81.5°F. on 1st August and the lowest was 22.5°F. on 20th December. There were twenty cold nights, *i.e.*, nights on which the temperature fell to 32°F. (freezing point) or below.

The prevailing direction of the wind in the Borough was south-west on 167 days, south-east on 53, north-east on 63, and north-west on 79, with three "calm" days. A summer gale occurred on 28th June and the wind again reached gale force on 23rd November.

The chief meteorological features of this abnormal year were the unusually dry spring, warm sunny weather in March and November, and the heavy summer gale in June.

The warm sunny November was followed by a cold spell in December accompanied by a fall of snow to the depth of approximately six to eight inches in these parts. The picturesque description of this weather as "Arctic" was a slight exaggeration as the lowest temperature recorded was 22.5°F., which is equal to 9.5 degrees of frost. Perhaps the changed conditions under which we live tend to make the weather appear worse than it really is.

The notes on infant and maternal mortality, infectious and other diseases, housing conditions, and other statistics usually included in the annual report, will be found under the headings referring to these matters.

Other
Statistics

Attention is also directed to the statistics on page 9 and to Tables A, B, C, and D at the end of this report.

II.—GENERAL PROVISION OF HEALTH SERVICES

A list of the whole-time officers of the Public Health Department on 31st December, 1938, appears on page 8.

Public
Health
Officers

The part-time officers connected with the Department comprised two medical officers, a male orderly, and a nurse at the Venereal Diseases Clinic held at Northampton General Hospital; a non-resident medical officer and his deputy at St. Edmund's Hospital, Wellingborough Road, which is a "mixed institution" under the management of the Public Assistance Committee; a medical officer and a nurse in connection with maternity and child welfare work; three public vaccinators, who also act for poor law medical out-relief; a consultant obstetrician; a public analyst; and two vaccination officers.

The staff employed in the school medical service is mentioned in the paragraph dealing with this subject on page 23.

Laboratory Facilities

No change was made during the year in these facilities, *i.e.*, for the examination of clinical material (sputum, swabs, etc.), water, milk, and foodstuffs. (*See* page 12 of 1930 report).

Ambulance Facilities

The Borough is well supplied with ambulances to deal with normal peace-time requirements.

INFECTIOUS CASES. The Public Health Committee owns three motor vehicles which are adaptable as ambulances.

NON-INFECTIOUS AND ACCIDENT CASES. These are provided for by the Northampton Branch of the St. John Ambulance Association, with headquarters in King Street. There is also an emergency ambulance (belonging to the St. John Ambulance Brigade) kept at the Fire Station on Upper Mounts, the driver of this vehicle being provided by, and at the expense of, the Watch Committee.

MATERNITY CASES. These are usually removed by the Ambulance Association.

Nursing in the Home

No extension or alteration of this service (outlined on page 11 of my report for 1930) was necessary. The Queen's Institute of District Nursing continued to give a very efficient service, a great blessing to the poor.

Treatment Centres and Clinics

The Maternity and Child Welfare Centres, Tuberculosis Dispensary, and Venereal Diseases Clinic were fully described in my report for 1930, pages 19 and 20. The scope and purpose of the Mental Diseases Clinic held at the General Hospital were outlined in my report for 1932, page 13. A description of the Infant Welfare Centre in St. Giles' Street and the Out-patient Department in connection with Manfield Orthopædic Hospital appeared on pages 14 and 15 of my report for 1936.

Owing to the overcrowding of Abington Avenue and Broadmead infant welfare centres it was found necessary to open an additional centre at Kingsley Park Methodist Church rooms on 7th March, 1938, to act as a relief.

A short description of the new School Clinic will be found on page 23.

Municipal Hospitals

Full reports on the four municipal hospitals were given in my reports for 1930 and 1931 :—

INFECTIOUS DISEASES HOSPITAL, HARBOROUGH ROAD. A considerable amount of work was carried out at this hospital during the year.

Ward I. Two side wards were built, one opening out of each main ward, *i.e.*, male and female sides. The out-of-date coal-fired stoves were removed and replaced by central heating. A new bathroom was built, the old one being converted into a pantry. The ward, built in 1892, was redecorated, which work included the planing of the floors, and is now one of the best and most efficient infectious disease wards in the Midlands.

Wards A and B. These wards were altered with the object of making them more easily administered. A covered-in verandah was erected on the north side of Ward B and inter-communication was made between the two wards, thus obviating walking round outside the building. A new bathroom was added, the floors were planed, and other sundry work carried out.

Wards IV. and V. These wards were built in 1915 and are used for the treatment of cases of scarlet fever. A pantry was built on to each ward and has proved a very useful addition. (*See also page 54*).

TUBERCULOSIS HOSPITAL, WELFORD ROAD. Only slight alterations and redecorations were carried out at this hospital. (*See also pages 55 and 72*).

SMALLPOX HOSPITAL, MERE WAY. Nothing in the nature of repairs or alterations was attempted at this hospital. (*See also page 55*).

ST. EDMUND'S HOSPITAL, WELLINGBOROUGH ROAD. The reconditioning of the female infirmary, including the maternity ward, was commenced during the year and had not been completed by the end of December. The maternity ward is now a very bright, comfortable, and efficient ward, much appreciated by those who use it, which is perhaps the highest praise it could receive. (*See also page 55*).

A description of Northampton General Hospital, Creaton Sanatorium, Manfield Orthopædic Hospital, and Berry Wood Mental Hospital appeared in my report for 1930, pages 16 and 17. Further reference is made to Manfield Hospital below and on pages 74 and 82 of this report and to Creaton Sanatorium on page 73. In last year's report an account was given of the new children's wards and the ear, nose, and throat department at Northampton General Hospital, officially opened on 22nd January, 1938.

In my report for 1936 I gave an account of the Barratt Maternity Home, situate in the grounds of Northampton General Hospital, and I mentioned that Mr. and Mrs. William Barratt were following up this splendid gift by another one, equally munificent. I refer to the Gynæcological Department adjoining, yet quite separate from, the maternity home. It includes a complete new maternity out-patient department, an operating theatre, and thirty-four beds for gynæcological work, together with the usual service rooms. The building is entered from the main corridor, which opens directly into the out-patients' waiting hall. Leading from this hall are the house surgeon's room, examination rooms, and dressing rooms, these latter being fitted as cubicles ensuring the utmost privacy for each patient. The gynæcological wards are arranged on two floors and consist of two large six-bedded wards, which are

Voluntary
Hospitals,
etc.

provided with an open balcony. Isolation wards are adjacent. There are also four single bedrooms for private patients. The whole Department is controlled by illuminated call signals. On the second floor is a patients' sitting room affording views over the Nene Valley. The maternity and gynæcological departments, which together have cost Mr. Barratt well over £50,000, form a complete unit not excelled, if indeed equalled, in this country and will for many years remain as a memorial to the love of Mr. Barratt for his native town. He has supplied Northampton with a specialised department which was sorely needed.

There was no official opening of the Gynæcological Department ; patients were first admitted on 4th August. The present number of beds at Northampton General Hospital is 381, including thirty-two beds at the Barratt Maternity Home.

The past year was also an important one for Manfield Orthopædic Hospital, as it saw the completion of the Board of Management's building schemes. No fewer than six different building contracts have been completed since the hospital opened fourteen years ago. The final stage provided a forty-bed ward for short-stay cases, a post-operative ward, a new X-ray department, and additional office accommodation. The new ward was completed in September and was to have been officially opened by the Dowager Marchioness of Reading on 28th September, but at the last moment the arrangements had to be cancelled owing to the international crisis. The new ward was brought into use, therefore, without a formal opening ceremony. It provides accommodation for patients of all ages and of both sexes requiring operative treatment for orthopædic conditions. It actually consists of four wards of ten beds each and is so arranged that each ward has its own solarium and is quite separate from the others, but the whole can be staffed and administered as a single unit. The hospital now has four open-air wards (118 beds) for patients requiring prolonged treatment, a ward block (40 beds) for short-stay cases, eight single-bed wards for private patients, and a convalescent branch of 24 beds, giving a total of 190 beds. It is thought by the Board of Management that, unless there is some fundamental change in hospital policy as a whole, which cannot yet be foreseen, the hospital now has enough beds to meet all demands that are likely to be made upon it.

Poor Law
Medical
Out-relief

No changes were made during the year in the provision of poor law medical out-relief. The part-time medical officers serving the three areas into which the Borough is divided for this purpose are :—

- No. 1 District (comprising Kingsley, St. Edmund's, St. George's, St. Michael's, South, and Weston wards)
—Dr. E. Robertson, 220, Kettering Road ;

No. 2 District (Castle, Kingsthorpe, St. Crispin's, St. James', and Spencer wards)—Dr. J. Cullen, 5, St. Matthew's Parade; and

No. 3 District (Delapre ward)—Dr. H. F. Percival, 2, Spencer Parade.

The "open choice" system of medical relief has not been introduced in Northampton. There are no district medical officers who devote the whole of their time to public health service. The present arrangements are working satisfactorily.

The whole-time officer appointed for visiting and advising parents regarding mental defectives has been a great help to those needing advice. Care of
Mental
Defectives

The Handicraft Centre in Kettering Gardens continues its very good work amongst mental defectives of such a grade as to be able to benefit by such teaching. The Occupation Centre carried on in part of the School Clinic in King Street caters for a somewhat lower grade of intellects. The hall in which these classes are conducted was renovated and considerably improved during the year while the new School Clinic was being erected.

At the end of 1938 there were thirty-six Borough patients in residence at Bromham House Colony, near Bedford (a short description of which appeared in my report for 1936, pages 17 and 18). The Colony was officially opened by Sir Laurence G. Brock, C.B., Chairman of the Board of Control, on 22nd September, 1938.

St. Edmund's Hospital, which is administered by the Public Assistance Committee as a "mixed institution," is certified under Section 37 of the Mental Deficiency Act, 1913, for the temporary reception of nine medium to low grade mental defectives, of either sex, over the age of sixteen years.

The information required by the Ministry of Health on the services provided under the following heads will be found in Section VII. of this report, dealing with Maternity and Child Welfare, on pages 61 to 63 :— Maternity
and Child
Welfare

- (a) Midwives Act, 1936 ;
- (b) Institutional Provision for Mothers and Children ;
- (c) Health Visitors ;
- (d) Child Life Protection ;
- (e) Dental and Orthopædic Treatment ;
- (f) Otorrhœa, etc.

One nursing home was registered for the first time on 3rd October, 1938, for the reception of three non-maternity cases and at the end of the year there were nine nursing homes on the register, viz :— Maternity
and Other
Nursing
Homes

Maternity Homes	2
Mixed Home	1
Homes for Medical and Surgical Cases, etc.	5
Home for Mothers and Babies	1

The last-mentioned institution is St. Saviour's Home, Kingsthorpe, managed by a committee of the Peterborough Diocesan Authorities, and was fully described in my report for 1930, page 18. The home is for unmarried mothers, who are retained in the institution for a period varying from three to six months after confinement during which time they receive a certain amount of training in domestic matters and child management.

These institutions contain sixty-two beds (including thirty maternity beds) and they were inspected at regular intervals by the Assistant Medical Officer for Maternity and Child Welfare, the officer appointed by the Local Supervising Authority to carry out this duty. (*See page 85*).

Five institutions were exempted from registration under Section 192 of the Public Health Act, 1936, viz :—Northampton General Hospital (including Barratt Maternity Home), Margaret Spencer Home of Rest, Manfield Orthopædic Hospital, John Greenwood Shipman Convalescent Home, and Bethany Homestead Nursing Home.

Steps to discover any unregistered homes (if any exist) are taken by circularising at intervals the general practitioners in the Borough and the midwives who have given notice of practice. No unregistered homes have been discovered so far.

Legislation in Force

Appended is a list of Local Acts and Orders, General Adoptive Acts, and Byelaws relating to public health in force in the County Borough :—

LOCAL ACTS AND ORDERS.

Northampton Improvement Act, 1843.

Northampton Waterworks Act, 1861.

Northampton Corporation Markets and Fairs Act, 1870.

Northampton Improvement Act, 1871.

The Local Government Board's Provisional Orders Confirmation (Arundel, etc.) Act, 1876.

Northampton Waterworks Act, 1882.

Northampton Corporation Act, 1882.

Northampton Corporation Waterworks Act, 1884.

Local Government Board's Provisional Orders Confirmation (No. 4) Act, 1892.

Local Government Board's Provisional Orders Confirmation (No. 14) Act, 1900.

Local Government Board's Provisional Orders Confirmation (No. 10) Act, 1907.

Northampton Corporation Act, 1911.

Northampton Corporation Water Act, 1913.

- Northampton Corporation Act, 1922.
- Ministry of Health Provisional Orders Confirmation (No. 1) Act, 1925.
- Northampton Extension Act, 1931.
- Ministry of Health Provisional Order Confirmation (Northampton) Act, 1932.
- The Northampton (Scarletwell Street) Housing Confirmation Order, 1933.
- The Northampton (Phoenix Street) Housing Confirmation Order, 1935.
- The Northampton (Tanner Street) Housing Confirmation Order, 1935.
- The Northampton (Spring Lane No. 1) Housing Confirmation Order, 1936.
- The Northampton (Nelson Street No. 1) Housing Confirmation Order, 1937.
- The Northampton (Nelson Street No. 2) Housing Confirmation Order, 1937.
- The Northampton (St. George's Square) Housing Confirmation Order, 1937.
- The Northampton (Paradise Row) Housing Confirmation Order, 1937.
- The Northampton (St. Edmund's Terrace No. 1) Housing Confirmation Order, 1937.
- The Northampton (St. Edmund's Terrace No. 1A) Housing Confirmation Order, 1937.
- The Northampton (Cliff Row No. 1) Housing Confirmation Order, 1937.
- The Northampton (Cliff Row No. 1A) Housing Confirmation Order, 1937.
- The Northampton (Adelaide Place) Housing Confirmation Order, 1937.
- The Northampton (Chapel Place) Housing Confirmation Order, 1937.
- The Northampton (Phoenix Street) Housing Confirmation Order, 1937.
- The Northampton (Doddridge Street) Housing Confirmation Order, 1938.
- The Northampton (Castle Gardens) Housing Confirmation Order, 1938.
- The Northampton (St. Mary's Street No. 1) Housing Confirmation Order, 1938.
- The Northampton (St. Mary's Street No. 2) Housing Confirmation Order, 1938.
- The Northampton (Dallington Road) Housing Confirmation Order, 1938.
- The Northampton (Arundel Street) Housing Confirmation Order, 1938.

- The Northampton (Welford Road) Housing Confirmation Order, 1938.
- The Northampton (High Street) Housing Confirmation Order, 1938.
- The Northampton (Brook Lane) Housing Confirmation Order, 1938.
- The Northampton (Kingswell Road) Housing Confirmation Order, 1938.
- The Northampton (Leicester Street and Nelson Street) Housing Confirmation Order, 1938.
- The Northampton (Ash Street) Housing Confirmation Order, 1938.
- The Northampton (Kingswell Street No. 1) Housing Confirmation Order, 1938.
- The Northampton (Kingswell Street No. 2) Housing Confirmation Order, 1938.
- The Northampton (St. Peter's Street, etc.) Housing Confirmation Order, 1938.
- The Northampton (Woolmonger Street) Housing Confirmation Order, 1938.
- The Northampton (Gregory Street) Housing Confirmation Order, 1938.
- The Northampton (Gas Street) Housing Confirmation Order, 1938.
- The Northampton (St. Peter's Street, etc.) Housing Confirmation Order No. 1, 1938.
- The Northampton (Horseshoe Street) Housing Confirmation Order, 1938.
- The Northampton (York Place) Housing Confirmation Order, 1938.
- The Northampton (Augustine Street) Housing Confirmation Order, 1938.
- The Northampton (Extension of Time) Order, 1938.

GENERAL ADOPTIVE ACTS.

- *Public Health Acts Amendment Act, 1890 :—
Parts I., II., III., and V. (adopted 6th April, 1891).
- *Public Health Acts Amendment Act, 1907 :—
Part II., except s. 19 (adopted 3rd July, 1911) ;
Part III. (s. 50 adopted on 28th August, 1912, s. 47 on 21st December, 1923, and remainder of sections on 21st March, 1932) ;
Part IV., except s. 68 (21st March, 1932) ;
Part V. (21st March, 1932) ;
Part VI. (3rd July, 1911) ;
Part X., s. 95 (14th November, 1922).

***Public Health Act, 1925 :—**

Parts II., III., IV., and V., except ss. 21, 25, 27, and 34 in Part II. and ss. 48 and 49 in Part IV. (adopted 8th March, 1926) ;
Part II., s. 21 (15th May, 1926).

**NOTE.—Certain of the above public health provisions of the Public Health Acts Amendment Act, 1890, the Public Health Acts Amendment Act, 1907, and the Public Health Act, 1925, were repealed by the Public Health Act, 1936, and re-enacted in that Act as general legislation.*

Local Government and other Officers' Superannuation Act, 1922 (adopted for officers on 1st July, 1930, and for workmen on 1st July, 1934).

BYELAWS.

UNDER THE PUBLIC HEALTH ACTS :—

Slaughterhouses (confirmed 1887, 1929, and 1932).
Nuisances from Snow, Filth, Ashes, Keeping Animals, &c. (1895 and 1932).
Offensive Trades (1895 and 1932).
Cemeteries (1910, 1921, 1936, and 1937).
Tents, Vans, Sheds, and Similar Structures used for Human Habitation (1914 and 1932).
Luggage Porters and Light Porters (1924).
Pleasure Grounds, &c. (1926 and 1933).
New Streets and Buildings (1927 and 1932).
Nursing Homes (1929 and 1932).
Imposing on Occupier duties in connection with Removal of House Refuse (1932).
Common Lodging Houses (1932).
Hackney Carriages, Carriers' Carts, and Other Vehicles (1938).

UNDER NORTHAMPTON CORPORATION WATER ACT, 1913 :—
Prevention of Pollution (1915).

UNDER MUNICIPAL CORPORATIONS ACT, 1882 :—
Good Rule and Government (1929).

Particulars of the provision made for blind persons under the Blind Persons Act, 1920, were given in my report for 1931, pages 17 and 18. The Blind Persons Act, 1938, came into operation on 1st April, 1938. Amongst other provisions in the 1938 Act are the following :— Blind persons become eligible for an old age pension at forty years of age instead of, as formerly, at fifty. The Act also provides that it shall be the duty of every county and county borough council to make arrangements for promoting the welfare of the blind ordinarily resident in their area, specifying certain things that may be done in this respect. It is no longer necessary for a council to obtain the

Blind
Persons

approval of the Minister of Health of their arrangements for promoting the welfare of the blind. There are other provisions relating to domiciliary financial assistance. The Acts are administered locally, and I believe very sympathetically, by the Blind Persons Committee, consisting of His Worship the Mayor and twelve members, eight being members of the Borough Council and four co-opted. During 1938 the Borough Council decided to alter the scales and regulations of the scheme for the assistance of the necessitous blind. The new regulations were introduced as an experiment until 31st March, 1939, when they will be reviewed. The Northamptonshire (Town and County) Association for the Blind acts as agent for the Council and administers the scheme of assistance.

At the end of 1938 there were 205 registered blind persons resident in the Borough certified as blind within the meaning of the Acts, *i.e.*, "so blind as to be unable to perform any work for which eyesight is essential." All the certificates were granted after examination by E. H. Harries-Jones, Esq., M.D., or Dr. S. H. G. Humfrey, Honorary Ophthalmic Surgeons to the General Hospital. From 1st April, 1936, all cases admitted to the register have been certified on Form B.D.8, which was devised by the Prevention of Blindness Committee and is approved by the Ministry of Health. Of these 205 blind persons :—

- 5 were St. Dunstan's trained men working at home ;
- 6 were in a residential home ;
- 4 were in the County Mental Hospital ;
- 4 were in St. Edmund's Hospital ;
- 4 were children at school ;
- 27 were employed in the Workshops, Gray Street ;
- 3 were employed as homeworkers ;
- 3 were employed elsewhere ; and
- 149 were classified as unemployable and were living at home or in lodgings.

No action was taken under Section 176 of the Public Health Act, 1936, for the prevention of blindness or for the treatment of persons suffering from any disease or injury to the eyes, as these are well catered for by the Ophthalmic Department of the General Hospital.

The Maternity and Child Welfare Committee and the Education Committee are also interested in the prevention of blindness. Every baby notified to the Medical Officer of Health as suffering from ophthalmia neonatorum (a common cause of blindness in the past) is at once visited by one of the health visitors, who recommends specialist treatment at the General Hospital in severe cases. No permanent injury to the eyes of a baby following ophthalmia neonatorum has occurred in Northampton for many years, and I believe a similar improvement has taken place throughout the country. That

being so, it may be expected that the so-called cases of blind from birth will be much decreased, if they do not completely cease. There is also an arrangement between the Education Committee and the Maternity and Child Welfare Committee whereby children under school age are accepted at the School Clinic for minor treatment of the eyes; four such cases attended in 1938. All school children suffering from any abnormal eye condition or defect receive treatment and advice at the School Clinic, suitable cases being referred to the specialists at the General Hospital.

The Medical Officer of Health, acting as School Medical Officer in an administrative capacity, keeps the Public Health and School Medical Departments in close touch with each other. Dr. J. H. Mason, the Assistant School Medical Officer, was again able to carry out the medical inspection of school children without outside help, but he had no time to spare for anything outside routine work, for whereas the number of children in average attendance to one whole-time school medical officer throughout the country averages 6,450, in Northampton it is 9,806 to one.

School
Medical
Service

The new School Clinic, erected in King Street on the site of the old building, was taken possession of on 19th December. The old Clinic was an adapted building about a century old and of course very badly planned for clinical work, whereas the new building of two storeys has been planned for its proper purpose. On the ground floor are the offices and waiting room, the doctor's consulting room, treatment room, sanitary conveniences, etc. The two dental rooms are on the upper floor. The whole is in very good taste and will facilitate the work of the school medical service, a service which is of the utmost importance if we are ever to have an A1 nation as visualised in the National Fitness Campaign.

The whole-time staff employed on school medical work comprises one medical officer designated Assistant School Medical Officer, two dentists, three nurses, and four clerks. An ophthalmic surgeon and a radiologist are employed part time and an ear, nose, and throat specialist is engaged for the removal of tonsils and adenoids.

The average number of scholars on the registers of public elementary schools for the year ended 31st December, 1938, was 10,545, the average attendance being 9,806 (93·0 per cent.).

The annual report of the School Medical Officer, prepared according to the requirements of the Board of Education for the Education Committee, is published separately and gives details of the work performed by the school medical service. (*See also "Schools,"* page 29).

Under what might be called the sponsorship of the Ministry of Health, there was conducted during the year a movement for the wider use of the health services provided by the Borough Council, a few of which are set out below :—

Ante-natal and post-natal services at the clinics held at the centre in St. Giles' Street ;

Infant welfare at the nine centres distributed conveniently throughout the Borough, including the St. Giles' Street building ;

School medical service at the School Clinic, King Street ;

Venereal diseases clinic held at Northampton General Hospital ;

Tuberculosis work at the Tuberculosis Dispensary, 2, Hazelwood Road.

The whole is supervised from the Public Health Office, 7A, St. Giles' Square.

The movement extended over a period of six months from October, 1937, to March, 1938, divided into different sections, viz :—October, the opening month, was devoted to general introduction, while in November and December attention was directed to the facilities offered in connection with the welfare of mothers and children, especially the prospective mother who had not as yet had an opportunity of availing herself of these opportunities. January was given over to the school medical service. In February attention was called to the special services for adolescents and adults, including those in connection with tuberculosis and venereal diseases, whilst March saw the opening of what was called the National Fitness Campaign.

The Public Health Committee made itself responsible for the distribution of literature in the form of leaflets, book-marks, etc., concerning all the activities (except the school medical service) by the temporary employment of nine men who it is believed visited every house in the Borough to leave the appropriate leaflets. The information concerning the school medical service was spread throughout the Town by the agency of the school children themselves, who took home the literature relating to their particular service. The Public Health Committee also arranged for the display on hoardings and in shops and other public places of the posters provided.

To assess the benefits derived from the campaign would be a task of some difficulty and uncertainty.

III.—SANITARY CIRCUMSTANCES

In my survey report for 1930 I gave some notes on the sources of the Borough water supply. The first six months of 1938 having much below the average rainfall and our starting the year with a depleted reservoir at Ravensthorpe, the Water Department was forced to resort again to pumping from the

river gravel at Spratton Bridge (intermittently during February and March and continuously from 14th April), Boughton Crossing (as from 27th April), and Merry Tom Lane (as from 11th May) to augment the supply and these sources were still being relied upon when the year ended. Pumping ceased at Merry Tom on 24th January, 1939, and at Boughton Crossing two days later.

On 5th April, C. B. Connell, Esq., M.Inst.C.E., one of the engineering inspectors of the Ministry of Health, held an inquiry at the Guildhall in connection with the application of the Town Council for an extension of the period fixed under the Northampton Corporation Act, 1922, for the taking of water from the wells and works at Boughton Crossing. The result was that the time for taking the water was extended by a further two years from 1st June, 1938. In spite of the shortage in the reservoir, the only restriction to the use of water in the Borough during the year was an order published on 6th April prohibiting the use of water by means of hose pipes for watering lawns and gardens, for washing motor cars, and for fountains, etc. This order remained in force until 14th October, 1938.

The daily consumption of water per head of the population averaged 23·9 gallons.

Samples of the water drawn from different points of delivery in the Town and from the pumping stations already mentioned were submitted to Professor R. T. Hewlett for bacteriological examination. Ninety-six samples were examined and in every case the water was found to be not merely satisfactory but of a high degree of purity.

The new reservoir in the Hollowell Valley was completed during the year and commenced to fill on 8th April, 1938, and was full on 28th February, 1939. Water was first taken into supply from Hollowell on 23rd March, 1939, nearly a year after the reservoir commenced to fill. Storage is one of the most efficient means of purification, one which we were not able to make use of in connection with the water taken from the river gravel as this had to be taken into supply almost immediately it had passed through the filters at the respective pumping stations.

I cannot dismiss this subject without paying a tribute to all who took any part in the undertaking during the trying time when water was being taken from the river gravel. It was only by the constant care and vigilance of all concerned—officers and men alike—that the public water supply was maintained in such a high state of bacteriological purity.

Drainage and Sewerage

A description of the sewerage system of the Borough was given in my report for 1933.

The Borough Engineer has kindly supplied the following information regarding drainage work carried out by, or under the supervision of, his Department during the year:—

Duston Road Improvement ;

Spencer Housing Estate ;

St. David's Housing Estate ;

Flood Relief Sewers :—

Kingsthorpe ;

Weedon Road ;

Bant's Lane.

Rivers and Streams

In spite of the small amount of rainfall during the first half of the year, that part of the river Nene which flows through the Borough was never in such a state as to cause a nuisance or to be dangerous or prejudicial to health. There are no large works, sugar refineries, paper mills, etc., discharging into the stream and polluting it either above or within the Borough boundary. A bacteriological analysis of a sample of water taken from the river just after it enters the Borough at Kingsthorpe shewed that it was quite suitable for bathing purposes.

Closet Accommo- dation

No conversions from pail closets or privies were carried out during the year. The few pail closets remaining in the Town are situated so far from a sewer and/or a water supply as to render conversion impossible at a reasonable cost.

Public Cleansing

This work is performed by the Highways Department as we have no separate Cleansing Department in Northampton. The methods of scavenging in use in the Borough were explained in my report for 1930, pages 23 and 24. The work is carried out efficiently with a minimum of inconvenience. Owing to most of the Town being built without backways, the ash bins have to be deposited in the front streets, not a happy procedure, but one which cannot be avoided. The method of collection and disposal practised for the past eight years is much in advance of anything previously tried.

The question of providing additional refuse disposal plant at West Bridge Depot is dealt with in the next paragraph.

Refuse Tips

Refuse tips, which have been a bugbear in Northampton for some years (I think the alleged nuisance was much exaggerated), have now been closed. In my last report I mentioned the closing of the Weedon Road tip by a resolution of the Council passed on 10th November, 1937. The privately-owned tip at the rear of St. George's Avenue, which had been a bone of contention for some time, was closed owing to the purchase of the main portion of it by two residents in the

neighbourhood and a local builder used it for his business, depositing only hard rubbish, soil from excavations. As there must be in every town a means of disposing of refuse, a large portion of which is putrescible and combustible, the Council has for many years owned a destructor. In my report for 1930 I gave an account of the new works at West Bridge Depot which took the place of the old plant in Bath Street. Owing to the growth of the Town (not the increase of population) and the closing of refuse tips, it has become necessary to increase the capacity of the destructor at West Bridge. J. C. Dawes, Esq., O.B.E., M.I.Mech.E., an inspector of the Ministry of Health, held an inquiry at the Guildhall on 27th January, 1938, into the Council's application for sanction to raise a loan of £16,829 for doubling the equipment. Sanction was granted and work in connection with the new installation was well in hand when the year closed.

The work of the sanitary inspectors is summarised in Table 5 (page 93) and Table 6 gives particulars of drainage reconstructions. During the year, 2,439 houses were inspected, of which 1,332 were found to require some attention, with the result that 1,013 were repaired, 872 were cleansed and white-washed, while others were dealt with as the conditions required, details of which appear in Table 5.

Sanitary
Inspection

Since the "overcrowding survey" was made in 1936, all houses inspected in what is called "house-to-house inspection" are now measured to check, amongst other information, the number of persons permitted to occupy a particular dwelling so as to comply with the Housing Act, 1936—Part IV., Abatement of Overcrowding.

Certain provisions of the Shops Act, 1934, are administered by sanitary authorities, viz:—subsections (1) and (2) of Section 10, which deal with sanitary and other arrangements in shops, chiefly heating and ventilation. The Inspector of Weights and Measures is the inspector appointed locally under the Act and on his finding any premises where the regulations as to ventilation, temperature, washing facilities, or lavatory accommodation are apparently not complied with, he reports to the Public Health Department. During 1938 he referred fifty-five premises to us for the necessary action. The sanitary inspectors paid ninety visits and suitable steps were taken when considered necessary to cause this section of the Act to be complied with.

Shops and
Offices

The additional inspector appointed for duties under the Factories Act, 1937, will also deal with offices under the Public Health Act, 1936. He commenced duties on 2nd January, 1939.

Smoke Abatement

Smoke from factory chimneys is not a common source of nuisance in Northampton as the machinery in most of the factories is operated by electricity or gas engines. The few factory and brewery chimneys which do exist are kept under observation by the district inspectors and any excessive emission of black smoke is dealt with effectively without legal proceedings. We have no byelaw dealing with the emission of black smoke, *i.e.*, limiting the number of minutes per hour during which black smoke may be emitted. The complaints received regarding the burning of leather waste, etc., on unsuitable furnaces and grates are also dealt with without our having to resort to legal action.

Swimming Baths and Pools

Swimmers are well catered for in Northampton, the Council providing open-air baths or swimming pools at three points in the river Nene as it flows through the Town, viz :— (1) at Kingsthorpe where the river enters the Borough, (2) at Miller's Meadow, and (3) at Midsummer Meadow. At the first two mentioned bathing places the river water is in its raw state, quite untreated, while at Midsummer Meadow, the largest of the three pools, the water is heated by passing through the condensers of the Northampton Electric Light and Power Company's works after which it is chlorinated.

The splendid indoor swimming, etc., baths in Upper Mounts, owned by the Corporation, were described in my report for 1936. It will be remembered that this palatial establishment provides not only swimming but Turkish and medicinal baths of various kinds.

A small indoor swimming bath at Barry Road School is under the management of the Education Committee.

In addition to these municipal swimming baths, there is at Franklin's Gardens an up-to-date privately-owned swimming bath fitted with filtration, aeration, and chlorination plants.

Six samples from the Public Baths on Upper Mounts and five from the bathing pools in the river were submitted to the bacteriologist who reported that all were suitable for bathing purposes. On four occasions the water from the indoor baths was reported to be up to the standard of drinking water.

Owing to the river Nene falling to a very low level, the Baths Committee closed the bathing place at Miller's Meadow from 5th July to 1st August.

Eradication of Bed Bugs

The Ministry of Health requires certain information regarding the eradication of bed bugs set out according to a prescribed form :—

- (1) Eighty-one Council houses were found to be bug infested during 1938, the majority of the cases being of a slight nature. In addition, there were two known verminous houses in Clearance Areas.

- (2) The methods of disinfection employed were :—
- (a) The use of a spray, the insecticides used being “ Zaldecide,” “ Rex,” “ Clymax,” and “ Cromessol B ” ;
 - (b) Fumigation by means of sulphur candles, *i.e.*, sulphur dioxide gas ;
 - (c) Treatment by means of a blow-lamp. Where found necessary, the woodwork (skirting boards, picture rails, etc.) are removed prior to treatment.
- (3) The furniture of incoming tenants from bug-infested houses is treated before removal to new houses. Soft articles (clothing, bedding, etc.) are disinfested by steam at the Public Health Committee’s Disinfecting Station, St. Andrew’s Road. Other furniture or articles which would be ruined by steam disinfection are sprayed with insecticide.
- (4) The work of disinfection is carried out by officers of the Local Authority. Hydrogen cyanide gas has not been used as it is considered to be too dangerous, fatal accidents occurring from time to time even in the hands of trained men.
- (5) No special measures were taken, other than those mentioned above, by way of supervision or education of tenants to prevent infestation or re-infestation after cleansing, but whilst giving instructions along with the insecticide advice was also given which would tend to prevent re-infestation.

The main work in connection with bug eradication has been largely confined to Council houses. The tenants of privately-owned dwellings have been given advice and supplied with insecticides and had their soft furnishings treated by steam disinfection. These methods have proved sufficient to keep any infestation in check, the number of complaints and applications for assistance from tenants of privately-owned property being very small.

The Medical Officer of Health (the nominal School Medical Officer), together with the Assistant School Medical Officer and the sanitary inspectors, kept the sanitary conditions of the schools under observation during the year. All the schools are on the public water supply, the purity of which there is no reason to doubt.

Schools

The incidence of scarlet fever remained low. Diphtheria shewed a further increase on the previous year. Measles and whooping cough did not give rise to any alarm. School closure on account of infectious illness was not necessary.

The Annual Report under Section 249 (3) of the Public Health Act, 1936, was dispatched to the Ministry of Health

Canal
Boats

before the appointed date, viz :—21st January. Mr. W. L. Monks, the Canal Boats Inspector, inspected twenty-six boats, registered to carry eighty adults ; the actual number of persons on board was forty-three adults and ten children. No infringement of the Act or Regulations was discovered and no case of notifiable infectious disease was reported in connection with any boat. No boats were detained for disinfection. The number of boats on the register believed to be in use was three. It does not appear that, so far as Northampton is concerned, there was any increase in canal traffic during 1938 ; rather would it seem that the reverse is true.

Common
Lodging
Houses

At the end of 1938, there were four common lodging houses on the register, viz :—

PREMISES.	ACCOMMODATION (MEN).
52, Broad Street	60
5, St. Andrew's Street	34
38/40, Compton Street	7
31, Mayorhold	15
Total	116

Two of these were new registrations, the other two being renewals. In three of the houses fire escapes and fire extinguishers have been provided in accordance with Section 238 of the Public Health Act, 1936. In the fourth and smallest house it was considered that a fire escape was unnecessary, the keeper being restricted to the use of the two lower floors for sleeping accommodation. In spite of the demolition of two common lodging houses in recent years under slum clearance schemes, there appears to be sufficient accommodation in the existing ones.

These premises are kept under supervision by Inspector Walker and are from time to time visited by the Medical Officer of Health and the Chief Sanitary Inspector.

We have no houses let in lodgings or byelaws in connection therewith.

Factories
and
Workshops

Table 7 (page 95) gives particulars of work done under the Factory and Workshop Act, 1901, and the Factories Act, 1937, set out in the prescribed form. The general scheme under which the 1901 Act was worked was that H.M. Inspector of Factories supervised the sanitary condition of all the textile and non-textile factories, leaving the sanitary authority to take charge of workshops, workplaces, and domestic factories. If the Factory Inspector found an insanitary condition in a factory he referred the matter to the local authority for necessary action.

The coming into force on 1st July, 1938, of the Factories Act, 1937, placed so much additional work and responsibility on the Department that the Council, on the recommendation of the Public Health Committee, appointed an additional sanitary inspector to devote the whole of his time to factory inspection. He commenced duty on 2nd January, 1939. Part I. of the new Act makes provision for dealing with cleanliness, overcrowding, temperature, ventilation, lighting, drainage of floors, and sanitary conveniences. All the sanitary inspectors on the staff were authorised in writing to perform duties under the new Act.

At the end of the year there were fourteen names on the register as persons carrying on offensive trades, viz :—two tanners, three tripe boilers, one soap boiler and fat melter, one bone dealer, and seven rag and bone dealers. Under Section 107 of the Public Health Act, 1936, the expression “offensive trade” means any of the following :—(a) the trade or business of a blood boiler, blood drier, bone boiler, fat extractor, fat melter, fellmonger, glue maker, gut scraper, rag and bone dealer, size maker, soap boiler, tallow melter, or tripe boiler ; or (b) any other trade, business, or manufacture previously declared an offensive trade locally under Section 51 of the Public Health Acts Amendment Act, 1907 ; or (c) any other trade, business, or manufacture which the local authority, by order confirmed by the Minister of Health, have declared to be an offensive trade after the commencement of the Public Health Act, 1936, *i.e.*, 1st October, 1937.

Offensive
Trades

The premises of two of the tripe boilers were closed under a slum clearance scheme ; one of the tenants built new premises in a suitable situation, the other had not found convenient accommodation by the end of the year. All the offensive trades were carried on with a minimum amount of nuisance. The premises were kept under observation by the district inspectors, with an occasional visit from the Medical Officer of Health and the Chief Sanitary Inspector. No infringement of the byelaws was observed.

We are fortunate in not having any permanent tent or shack dwellers in the Borough. Until the recent alterations in the Cattlemarket, a few caravan dwellers who tour the country during the summer months were in the habit of parking their vehicles on a portion of the Cattlemarket during the winter, and we considered this the most suitable place for them owing to the presence of water and sanitary conveniences. I understand the Markets Committee passed a resolution (which has not been rescinded) prohibiting the parking of caravans on any portion of the Cattlemarket. Any persons parking caravans

Tents, Vans,
Sheds, etc.

or setting up tents, shacks, etc., on unsuitable sites would be obliged to move off under pressure from the Department.

There are no camping sites in the Borough.

Premises
controlled
by Bye-
laws, etc.

Particulars of these, excepting the above-mentioned, will be found in Section V. (pages 38 to 50) dealing with food, as they comprise cowsheds, dairies, bakehouses, slaughterhouses, ice cream shops, etc.

Rag Flock
Acts, 1911
and 1928

The premises where rag flock is used in the manufacture of low-priced furniture, cushions, etc., were visited by the Chief Sanitary Inspector on fourteen occasions to examine invoices to ascertain if they guaranteed that the flock reached the standard prescribed by the Rag Flock Regulations, 1912. As all the invoices were found to be in order, no samples were taken. I have on several occasions explained the object of these Regulations.

Rat
Repression

It may be remembered that in my report for 1936 I mentioned that Mr. A. Patching, the Borough Rat-catcher, suffered from a severe attack of leptospirosis (Weil's disease). He returned to duty but was never again his old self; he developed a severe attack of bronchitis and died on 20th April. The death was followed by a Coroner's inquest when, on medical evidence, the cause of death was found to be "bronchial asthma accelerated by Weil's disease." A successor (Mr. W. E. J. Dunkley) was appointed and commenced duty on 13th June.

The Borough Rat-catcher, working under the supervision of the Chief Sanitary Inspector in the latter's official capacity of Rat Officer, is at the service of any ratepayer requiring his help or advice in ridding his premises of rats. His chief means for destroying these vermin consists of ferrets and dogs and the injection of suffocating gas into the burrows. The indiscriminate use of poison is not looked upon with favour by the Department, as it introduces unnecessary risks. As we are constantly at work upon the rats, we do not hold any "official" rat week. During the year, the Rat-catcher accounted for 2,073 rats. Table 11 (page 98) shews the number known to have been destroyed since the appointment of a Borough Rat-catcher was made in 1919.

IV.—HOUSING

Council
Houses

The Borough Engineer has supplied the Department with particulars of the progress made under the municipal housing schemes :—

Number of Council houses completed during 1938 ..	338
Total number of houses erected by the Corporation up to 31st December, 1938	4,451

In addition to the above, the following private building operations, plans for which had been approved by the Highways Committee, were carried out during the year:—

Other New
Buildings

Houses (private enterprise)	453
Shops and houses combined	10
Conversion of dwellinghouses into flats	2
Conversion of licensed premises into shop and house combined	1
Additions to houses	12
New shop-fronts and conversion of dwellinghouses into shops	14
New premises; arcade, offices, etc. (first part) ..	1
Office suites	3
Printing works	1
Workshops	5
Factory chimney and boiler-house	1
Additions to factories and warehouses	9
Dairies	4
Church and parochial buildings	1
Addition to church (vestries)	1
Extension to Bethany Homestead	1
Extensions to hospitals	2
Extensions to breweries	2
Licensed premises (hotel)	1
Alterations or reconstructions of licensed premises ..	11
Haulage and service garages	3
Extensions to service garages	4
Motor-houses	141
Store sheds	11
Greenhouses	3
Water closets	9
Electric light sub-stations	2
Temporarily licensed premises	7

Table 8 (page 97) contains particulars of eight individual unfit houses represented by the Medical Officer of Health during the year under Section 11 of the Housing Act, 1936.

Housing
Acts

The work on the five houses in Green End, which were being reconditioned at the end of 1937 in accordance with undertakings from the owners, was completed to the satisfaction of the Department on 24th February, 1938.

No house was repaired under the provisions of Section 9 of the Housing Act, 1936.

The staff made 1,653 visits of house-to-house inspection under the Housing Consolidated Regulations, 1925 and 1932, and found defects in 1,097, chiefly want of cleanliness and repairs.

The progress made with Clearance Areas is mentioned under the heading “ Slum Clearance ” which follows.

Slum
Clearance

My annual reports from 1934 onwards give details of the progress made with slum clearance under the Housing Acts, 1930 and 1936, and an account is given below of the action taken during 1938 :—

CLEARANCE AREAS IN GROUP IX. This group comprised ten areas represented on 5th July, 1937 (*see* pages 29 and 30 of 1937 report).

A Ministry of Health inquiry was held by G. B. Bridgman, Esq., F.R.I.B.A., at the Guildhall on 29th March, 1938, and all the Orders were confirmed on 5th August, 1938, subject to one minor modification in the case of St. Peter’s Street Compulsory Purchase Order.

CLEARANCE AREAS IN GROUP X. This group consisted of seventeen areas, each of which was represented to the Housing Committee by the Medical Officer of Health on 25th October, 1938, under Section 25 of the Housing Act, 1936 :—

Clearance Areas.	Houses to be Demolished.	Persons to be Displaced.
Bath Gardens	10	30
Bath Row	2	5
Bath Square	23	63
Bath Street	5	12
Bull Head Lane	3	6
Grafton Place	5	12
King Street No. 1	3	14
King Street No. 2	12	47
Priory Terrace	9	28
St. James’ Road	12	31
St. James’ Square	15	49
Scarletwell Street	14	47
Swan Street No. 1	3	2
Swan Street No. 2	7	24
Upper Cross Street	11	22
Wellington Street	4	11
Willesden’s Yard	11	33
Totals	149	436

Thirteen of the houses were vacant at the date of representation. Thus the 136 occupied houses were inhabited by 436 persons (364 adults and 72 children)—an average of 3·2 persons per house.

On 30th January, 1939, the Town Council decided to deal with the following six areas by way of Clearance Orders, viz :—

Bull Head Lane, Priory Terrace, St. James' Square, Swan Street No. 1, Wellington Street, and Willesden's Yard. Compulsory Purchase Orders were made on the remainder.

Table 5 (page 93) gives particulars of the work of the sanitary inspectors under these Acts.

Public
Health
Acts

No house was certified by the Medical Officer of Health under the terms of Sections 83 or 167 of the Public Health Act, 1936.

No legal proceedings were necessary during the year to enforce notices relating to the renovation of property, but an occupier was summoned for obstructing a sanitary inspector from entering her house for the examination of rooms. The case was adjourned for one hour, during which time the inspection was made.

Prosecutions

Other prosecutions are dealt with in the paragraphs dealing with Food and Drugs (Adulteration) Act, 1928, on page 48; Slaughter of Animals Act, 1933, on page 43; and Public Health (Meat) Regulations, 1924 and 1935, on page 42.

Overcrowding, infrequent though it is in Northampton, is not a matter which can be abolished immediately, in fact it is a condition which, while remaining very small in amount, is continually changing, some houses ceasing to be overcrowded owing to various reasons, *e.g.*, deaths, or some members leaving home to be married or having found work in another area, while some additional cases of overcrowding occur owing to births or increasing age of the younger members of a family, or the taking in of lodgers. Every case of overcrowding coming to our notice is referred to the Corporation Housing Department to be dealt with, and during 1938 twenty-two cases were reported, forty-one were relieved, and 124 remained on the books.

Over-
crowding

During 1938, we received 101 applications from landlords, agents, etc., to supply the "permitted numbers" for 594 dwellings.

By the end of December, 1938, the Corporation had erected 4,451 houses since the War and in the same period private enterprise had provided about 5,000, making a total of 9,451 since the Armistice. Taking the total number of houses in the Borough as 28,400, this means that nearly a third of the houses in the Town are not over twenty years old, in other words Northampton has been to a large extent rebuilt during the last twenty-five years. In spite of the large amount of building which has taken place and the relatively small increase in the population, there is still a considerable demand for houses, the Housing Department having on their books when the waiting list was revised on 1st November, 1938, the names of 1,178 applicants

Sufficiency
of Supply
of Houses

for Council houses, shops, or flats, of which 273 were living in rooms, 585 were tenants of privately-owned houses, and 105 lived outside the Borough. The increase in the number of families is out of all proportion to the increase in the population due, of course, to the small number of children in a family, one or two being the rule. As long as slum clearance persists there will be a call for more houses to accommodate the dispossessed and slum clearance, using the term in its widest sense, is not likely to be finished for some time. It will finish when property (and incidentally men) ceases to age.

Housing
Statistics

The particulars for 1938 are set out below in the form required by the Ministry of Health:—

1.—*Inspection of Dwellinghouses.*

(1) (a) Total number of dwellinghouses inspected for housing defects (under Public Health or Housing Acts)	2,439
(b) Number of inspections made for the purpose	2,439
(2) (a) Number of dwellinghouses (included under sub-head (1) above) inspected and recorded under the Housing Consolidated Regulations, 1925 and 1932	1,653
(b) Number of inspections made for the purpose	1,653
(3) Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	157
(4) Number of dwellinghouses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	1,175

2.—*Remedy of Defects without Service of Formal Notices.*

Number of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers	319
--	-----

3.—*Action under Statutory Powers.*

A.—Proceedings under Sections 9, 10, and 16 of the Housing Act, 1936:—

(1) Number of dwellinghouses in respect of which notices were served requiring repairs	0
(2) Number of dwellinghouses rendered fit after service of formal notices:—	
(a) By owners	0
(b) By Local Authority in default of owners	0

B.—Proceedings under Public Health Acts :—

(1) Number of dwellinghouses in respect of which notices were served requiring defects to be remedied	862
(2) Number of dwellinghouses in which defects were remedied after service of formal notices :—	
(a) By owners	809
(b) By Local Authority in default of owners	0

C.—Proceedings under Sections 11 and 13 of the Housing Act, 1936 :—

(1) Number of dwellinghouses in respect of which Demolition Orders were made	0
(2) Number of dwellinghouses demolished in pursuance of Demolition Orders	0

D.—Proceedings under Section 12 of the Housing Act, 1936 :—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	0
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	0

4.—*Housing Act, 1936.—Part IV.—Overcrowding.*

A.—(1) Number of dwellings overcrowded at the end of the year	124
(2) Number of families dwelling therein	124
(3) Number of persons dwelling therein	1,024*
B.—Number of new cases of overcrowding reported during the year	22
C.—(1) Number of cases of overcrowding relieved during the year	41
(2) Number of persons concerned in such cases	380*
D.—Particulars of any cases in which dwellinghouses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	Nil
E.—Any other particulars with respect to overcrowding conditions upon which the Medical Officer of Health may consider it desirable to report	†

*Equivalent number of adults = $885\frac{1}{2}$ and 326 respectively.

†See paragraph on "Overcrowding," page 35.

Other
Housing
Matters

Reference should be made to Section III. "Sanitary Circumstances" for other information bearing on housing.

The estimated number of inhabited houses in the Borough on 31st December, 1938, was 28,400.

V.—INSPECTION AND SUPERVISION OF FOOD

Milk
Supply

The number of milch cows housed in the Borough during March, 1938 (the latest date on which we have information) was 121. The premises of registered producers were kept under supervision by the district sanitary inspectors, with occasional visits from the Chief Sanitary Inspector and the Medical Officer of Health. The pasteurising establishments were visited from time to time by the Medical Officer of Health when the thermographs from the pasteurisers and the coolers were examined to see that the plant was working between the limits laid down for efficient pasteurisation.

Early in 1939 we received a questionnaire from the Ministry of Health framed with the idea of ascertaining what proportion of the milk consumed in the Borough was heat treated. There was also the further question of whether pasteurisation and sterilisation of milk had increased in the Borough during the last ten years. In order to obtain the necessary information, the Department got in touch with the large wholesalers who process milk and supply many of the smaller retailers; we also made inquiries of the dealers residing out of Town who bring milk into Northampton and communicated with the three large hospitals in town to ascertain their daily consumption, and each inspector made inquiries of the retailers in his district. As a result of these extensive inquiries we were able to state definitely that the consumption of milk has risen since we made our last survey in 1927 and that the proportion which is pasteurised also shews an increase. The figures are set out in Table 13 on page 100, which also gives the corresponding figures for 1927. It will be noticed that the consumption of milk per head of the population has risen by nearly fifty per cent. in twelve years, viz:—from 0.43 pint in 1927 to 0.61 pint in 1939. Three-quarters of the milk now consumed in the Borough is treated by heat.

Milk in
Schools, etc.

The milk in schools scheme holds its own, in fact it appears to be making some headway. In spite of there being fewer children on the registers, slightly more bottles of milk were consumed in school during 1938 than during the three preceding years, the figures for which read as follow:—1935, 1,182,447 bottles; 1936, 1,147,039; 1937, 1,087,192; 1938, 1,240,484. The highest number of bottles of milk, each containing one-third of a pint, consumed in any full week was 30,811 for the week

ended 20th May, which is considerably higher than anything during the previous year, and the lowest was 26,832 during the week ended 18th February. The greatest number of children taking milk was 6,920 during the week ended 20th May and the smallest during a full week was 6,118 for the week ended 4th February, the average being 6,507 in 1938 compared with 5,874 in 1937. All the milk is pasteurised and obtained by contract from one or other of the large distributors in the Town. Slightly over ten per cent. was supplied free by the Education Committee to children whose parents were considered not to be in a position to pay for it.

A considerable amount of milk is given free to mothers and children by the Milk Sub-Committee of the Maternity and Child Welfare Committee. (*See* page 86).

Before the coming into force of this Order on 1st April, 1938, the milch cows in the Borough had been inspected for the Council twice a year by Major J. J. Dunlop, M.R.C.V.S., D.V.S.M., with a view to discovering any cases of tuberculosis or any other animal diseases amongst the herds. One of the changes made by the Agricultural Act, 1937, was the transfer of veterinary functions from the county and county borough councils to the Ministry of Agriculture and Fisheries. Under the Tuberculosis Order of 1925, when we took a sample of milk which was found to contain tubercle bacilli we obtained further follow-up samples until we had traced the infected cow, when the matter was referred to the veterinary surgeon appointed to act under the Order, who had the animal destroyed. Under the 1938 Order, on our receiving a report from the bacteriologist that a certain sample of milk contains tubercle bacilli we refer the matter at once to the Divisional Inspector, D. D. Canning, Esq., M.R.C.V.S., Animal Health Division, 48-50, St. Giles' Street, Northampton, the officer appointed by the Ministry of Agriculture to deal with the matter locally. So far the Order appears to have worked very successfully, the infected animals having been found and dealt with in a short time after the matter was reported. In one instance the cow had left Northampton but was tracked down and slaughtered in Sheffield abattoir, when it was found to be affected with generalised tuberculosis.

Tuberculosis
Order, 1938

Forty-four samples of milk were examined at the Lister Institute of Preventive Medicine, London, by inoculation tests for the presence of tubercle bacilli, four being reported positive, *i.e.*, containing tubercle bacilli. This information was passed on to the Divisional Inspector and in all cases the infected animals (five in all) were found and dealt with under the Order.

Dairies,
Cowsheds,
and Milk-
shops

At the end of December, eleven cowkeepers, 141 retail dairymen, and eight wholesalers were on the registers. Twenty-seven of these retailers live outside the Borough ; their premises were inspected by the officers of the rural sanitary authorities and passed as fit for the purpose before they were placed on our register. In addition, 197 persons are allowed to sell milk in bottles only on condition that the seal of the bottle is intact when it leaves the premises, these premises being places where conditions are unsuitable for the sale of loose milk. Twelve certificates of registration were issued, nine being transfers. The inspectors paid 772 visits to registered premises during which defects were found in nine instances ; these were remedied on representations being made.

The weak point in bottled milk, unless the bottling is carried out by one of the large firms who possess special plant for this purpose, is the cleansing of the bottles. The perfunctory cleaning the bottles receive in a small outhouse supplied by hot water from a gas ring is not satisfactory, nor is the scrubbing of the inside of the bottles with a brush which is far from sterile. The bottles cleaned at one of the big depots are not only clean but generally sterile as well. On three occasions during the year I picked out a bottle at random during my visits and after having a seal placed in position brought it away with me and had the water of condensation examined at the laboratory. In two instances the water was quite sterile and in the third bottle it was almost so. The proper cleaning and sterilising of churns and bottles, to effect which steam is necessary, play an important part in the keeping qualities of the milk. Fortunately most of the milk sold in bottles is bottled by one of the three large firms.

Milk
(Special
Designa-
tions)
Orders, 1936
and 1938

The following licences under these Orders were in operation at the end of 1938 :—

Dealers' licences to use the designation " tuberculin tested " :—

(a) bottling establishments	2
(b) shops and other premises	16

Dealers' licences to use the designation " pasteurised " :—

(a) pasteurising establishments	3
(b) shops and other premises	5

Producer's licence to use the designation " accredited " 1

These licences were held by eighteen dairymen in all.

Sixty-eight samples of milk were taken for bacteriological examination, viz :—fourteen tuberculin tested, fifteen pasteurised sold as such, five pasteurised sold in bottles as ordinary milk, five pasteurised sold loose as ordinary, twelve ordinary milk in bottles, one ordinary milk in a carton, fourteen ordinary loose milk, and two sterilised milk.

All but one of the tuberculin tested milks satisfied the prescribed methylene blue reduction test for cleanliness. A second sample from the defaulting source was satisfactory.

All the pasteurised milks complied with the requirements of the Orders. The average number of organisms per ml. (millilitre) was 2,177 ; the highest was 15,600 and the lowest 50.

The ten pasteurised sold as ordinary milk contained an average of 70,122 bacteria per ml., the highest being 391,200 and the lowest 1,220. Apart from one sample in which the organisms were estimated to be 9,104,000 per ml., the average count of the remaining twenty-six ordinary milks was 49,333 per ml., the highest being 174,400 and the lowest 110. The two sterilised milks were, in fact, found to be sterile.

These results may be considered to be fairly satisfactory and shew the care with which the bulk of the milk consumed in the Borough is produced and distributed.

No change was made in the arrangements for food inspection, including the inspection of meat, slaughterhouses, shops, stalls, and other places where food is prepared or sold. One member of the staff is specially appointed as Meat and Food Inspector, devoting all his time to this work, while five of the other inspectors give a portion of their time (each man devoting Wednesday afternoon—the principal killing day) to it, the whole being supervised by the Chief Sanitary Inspector. This plan has worked satisfactorily for years and we have not found any reason to alter it. Ante-mortem inspection is one of the duties of the part-time Corporation Veterinary Surgeon who attends at the Cattlemarket every Wednesday and Saturday (market days). The number of killings per annum in the Borough is unknown as no record of such happenings has ever been kept. Tables 9 and 10 (pages 97 and 98) give particulars of food condemned.

Meat and
Other Foods

No meat marking scheme under Part III. of the Public Health (Meat) Regulations, 1924, is in force in Northampton.

Table 10 (page 98) gives particulars regarding tuberculosis found in slaughtered animals and shews its prevalence amongst bovines and pigs. 41·9 per cent. of whole and 66·0 per cent. of part carcasses of beef, veal, and pork condemned were surrendered on account of its being infected with tuberculosis. It was the widespread infection of cattle by tuberculosis which was the chief cause of the formation of the Department of Animal Diseases under Divisional Inspectors. This was meant to be a formidable attack on tuberculosis in cattle, but the subject is of such proportions it will be some years before the effect of the new legislation shews itself to any great extent. As mentioned under the heading Tuberculosis Order, 1938, the new arrangement appears to be working well locally.

Disease in
Meat

Another disease which is common in pigs and leads to the condemnation and subsequent destruction of whole carcasses is swine erysipelas. It is interesting to note that amongst the carcasses of pork condemned, more carcasses (twenty-six) were affected with erysipelas than with tuberculosis (eleven).

Section 117
of the Public
Health Act,
1875

The officers of the Department did not make any formal seizure of unsound meat during the year, all the meat condemned being either found by them at the time of slaughter or the inspector's attention was called to it by the butcher who was willing to accept the officer's decision. I am still of the opinion that the contributory fund operated by the Master Butchers' Association for compensating any member who, having killed a diseased beast or pig, surrenders it voluntarily on the certificate of the inspector is a splendid institution and does much to promote good feeling between the masters and the Department and maintain the home-killed meat market in a state which is a credit to the Town.

Slaughter-
houses

At the end of the year there were forty-four slaughterhouses of various ages on the register. Thirty-one of these were registered or licensed before the adoption of Part III. of the Public Health Acts Amendment Act, 1890. The remaining thirteen, which are on the whole more recent erections than the foregoing, are on annual licences renewable each January. The inspectors paid 4,664 visits of inspection during the year, 4,395 during actual slaughtering. Forty-two infringements of the byelaws governing slaughterhouses were discovered, the chief one being failure to whitewash at the proper time. These infringements were remedied without our resorting to legal action. Two persons were prosecuted, however, for using a slaughterhouse when it was not properly licensed (*see next paragraph*).

Public
Health
(Meat) Regu-
lations, 1924
and 1935

These Regulations, which were framed with the object of facilitating the inspection of meat, imposed several conditions upon butchers; amongst them it was made an obligation to give notice to the officer of the local authority appointed to receive it, of intention to slaughter either at fixed times on specified days, or if out of the usual times, three hours' notice must be given, except in case of emergency. 452 notices of casual slaughter were received during 1938.

Three persons were prosecuted during the year for not giving notice of intended slaughter and two of them also for using a slaughterhouse not properly licensed. The fines inflicted amounted to £3 10s. 0d.

It may be recalled that following the provisions of this Act no person is allowed to stun or slaughter animals in a slaughterhouse unless he is registered as a slaughterman by the local authority. During 1938, the names of fifteen slaughtermen were added to the register, making a total of 229 at the end of the year.

Slaughter of
Animals
Act, 1933

A lad of seventeen was fined 7s. 6d. for slaughtering or stunning sheep, not holding a licence under this Act, being under age.

The inspectors continue to carry out the duties imposed by the Merchandise Marks Act, 1926, and the Agricultural Produce (Grading and Marking) Act, 1928, and the numerous Orders made thereunder.

Grading and
Marking of
Foodstuffs

There were eighty-three bakehouses on the register at the end of the year. The inspectors paid 272 visits of inspection, during which twenty-one infringements of the Act were discovered, the chief delinquency being the failure to whitewash at the appointed times. These defaults were rectified without taking legal proceedings.

Bakehouses

Under this heading come premises where food is dealt with, other than those already mentioned, including those connected with the manufacture and storage of potted meats, jams, sweets, ice cream, etc. 1,398 visits of inspection were paid to these premises.

Other
Premises
dealing with
Food

In my report for 1937 I passed some remarks on the improvements which have taken place in the ice cream trade during comparatively recent times. Under the Food and Drugs Act, 1938, which will come into operation on 1st October, 1939, it may be possible to make further improvements.

An outbreak of food poisoning which assumed considerable proportions was reported to the Department on the morning of Monday, 7th March, 1938. About eleven o'clock on that day I was told that a large number of police officers and constables were off duty sick following the Annual Dinner of the Northampton County Borough Police Social and Sports Club, held at the Guildhall the previous Friday evening, 4th March. I was also informed that the suspected article of food was braised celery (canned): the reason for suspicion attaching to the celery was that no person who sat at a table where celery was not served was ill, a statement which could not be subsequently verified.

Food
Poisoning

Realising that I was to deal with an outbreak of food poisoning, probably bacterial in origin, I made arrangements with the Police Surgeon for the collection of specimens of fæces from five of the sufferers for transmission to the Ministry

of Health Pathological Laboratory in accordance with the Ministry's Memo. 188/Med., for identification of the infecting organism, as most cases of food poisoning are due to bacterial, rather than chemical, agents. These specimens were dispatched to the Laboratory the next day, 8th March.

Along with the Chief Sanitary Inspector I interviewed the caterer's manager, who gave me a tin of celery of the same brand as that served at the dinner, but not from the same case. (This tin was not sent for analysis and was eventually returned to the caterer).

None of the dinner could be obtained for collection for bacteriological examination, as what the diners left was eaten by the caterer's staff, which, I was given to understand, is the usual practice.

The following was the menu at the dinner :—

Mock Turtle Soup.

Fillet of Plaice. Tartare Sauce.

Roast Sirloin of Beef. Brussels. Mashed Potatoes.

Roast Turkey and Sausage. Braised Celery.

Wine Trifles.

Cheddar Cheese. Gorgonzola. Biscuits.

I also asked the Officer in Charge of the Central Police Station to prepare for me a list of all officers and men away sick, together with their addresses.

On Tuesday morning, 8th March, taking with me a copy of the menu, I commenced to visit the sick men, not with the idea of treating them (that being the duty of the Police Surgeon), but in order to inquire into the symptoms of the illness and by a process of elimination to ascertain if possible which was the infecting article of food.

My procedure in every instance was to inquire as to the time of onset, which was not always easy to determine because in some cases the onset was more insidious than in others. It varied considerably between Saturday afternoon and Monday morning, but where a man awoke in the early hours of Sunday morning with violent abdominal pain and diarrhœa, or had some particular reason for noting the time, the actual onset of symptoms was more easily and definitely fixed.

My next question was regarding the first symptoms, and as one might expect the answer most frequently given was abdominal pain and diarrhœa, often accompanied by shivering and feeling of cold, in fact a definite rigor followed by high temperature and profuse sweating. Vomiting occurred in some cases, but was not such a constant feature as diarrhœa, which was remarkably severe, causing fainting in two instances and where actual fainting did not occur there was a profound weakness and unsteadiness of gait. So much did the onset occasionally

resemble an attack of malaria, that two of the victims told me they at first thought they were experiencing a relapse of malaria from which they suffered during the War.

Five were out of town when the illness commenced, two having gone North for the weekend, the third to London, while two were on a motor trial in Derbyshire. The men on the motor trial and the two who went North thought at first their indisposition was due to the motor ride.

In each instance, after obtaining sufficient information regarding the symptoms to satisfy myself that the patient was suffering from the same infection as the others, I produced the menu and reading aloud to him I asked him to name what food he did not take, this being thought a better plan than asking what he did eat. I had not proceeded far on these lines before it became evident that the celery was not the offending article of diet, as I questioned several persons who said they did not partake of celery and gave definite reasons why they missed it. Other persons omitted one article or another; some did not eat sausage, others refused sauce with the fish, others did not take trifle, some did not take beef. But during the whole of the investigations (which occupied three days) amongst the police, the special constables and other guests, or members of the caterer's staff who were ill subsequent to the dinner, I never met a single person who had not eaten turkey, and three were interviewed (who were not official diners), including members of the caterer's staff, who ate nothing but turkey.

On Thursday morning, 10th March, I received a telegram from the Director of the Ministry's Laboratory saying he had found *Salmonella aertrycke* in the fæces sent for examination and suggesting we inquire into the use of ducks' eggs at the dinner. This we did and were assured that none were used in the preparation of any food served at the dinner, and that the caterer never uses ducks' eggs when eggs are required.

Soon after we received the telegram from the Bacteriologist giving us the name of the organism found in the fæces, I circularised all the medical practitioners in the Borough, including the County Medical Officer of Health, as four of the known victims resided in the County area.

On 16th March I sent to the Ministry's Laboratory six specimens of blood from members of the police force for examination for the presence of the specific agglutinins. Three of these had already supplied fæces. The results of the blood examinations were such as to confirm the original diagnosis of *aertrycke* infection, as all except one shewed the presence of the specific agglutinin in high titre, in one instance up to 1 in 1280. The Bacteriologist added a note which reads, "D's absence of agglutinin does not necessarily mean that he was

not infected : it may mean either that he had no blood invasion or that the phase of the bacillus he happened to get most of was "group".

Rats are known to be carriers of the infection from which these diners suffered, and as they were known to exist in a ruined out-building (now demolished) at the rear of the premises of the fish and game merchants who supplied the turkeys, I instructed the Borough Rat-catcher to obtain six rats from these premises for transmission to the Ministry's Laboratory. These were dispatched on 11th March and on 14th March we received a report from the Bacteriologist saying that no *aertrycke* was found in the rats. I have no reason to think the turkeys, after arrival in Northampton, were ever in any position accessible to rats, and the Bacteriologist's report on the examination of the latter does not cause me to alter my opinion. I think it more probable that at least one of the turkeys was infected during life.

As the information gathered during interviewing affected persons pointed to the turkeys (or some of them) as the cause of the outbreak, I inquired into the history of the birds and obtained the following particulars:—

Eight Hungarian turkeys arrived at the shop of the fish and game merchants in Northampton from their wholesale depot in London on Wednesday, 2nd March, per L.M.S. passenger train. They had been chilled but were "workable" on arrival, *i.e.*, they were sufficiently thawed for dressing to be proceeded with. Whether they had been kept in cold storage in London or not was unknown to the manager of the Northampton branch shop. The birds were taken from the crate and weighed. They were not "drawn" on arrival here, as it is the usual practice to tranship poultry from foreign countries, including Hungary, with the entrails *in situ* and with the head and wing-tip feathers still on.

One turkey was dressed on arrival and taken to the caterer. The remaining seven were hung on a rail about nine to ten feet above the floor of the store room, where they remained until the following morning (Thursday), when six were taken down and dressed and were also sent across to the caterer. The eighth bird, the last of the consignment, was purchased by another fishmonger. It was dressed about seven p.m. on Saturday, 5th March, and delivered to him at his residence the same evening.

So far as we can ascertain, no ill effects followed the consumption of either the first or the eighth turkey of the consignment.

It is not known in Northampton when the birds arrived in London.

This outbreak of food poisoning appears to be the largest of which we have any record in the Borough. We shall probably never know exactly how many persons were affected, as it is almost certain some who were not very ill did not report ; I continued for some time to pick up stray cases.

The problem was rendered a little out of the ordinary by two circumstances, viz :—the onset of symptoms being delayed longer than usual and, secondly, my not hearing of the illness until late on Monday morning, by which time there was none of the suspected food left to be sent to the Laboratory for examination.

Our final figures were :—

Members of Police Force affected (including the Chief Constable and Superintendent)	40
Members of Mobile Section of the Special Constabulary affected (including four resident in the County)	17
Other Official Diners affected	6
	—
	63
Caterer's Staff, etc., affected (not official diners)	5
	—
	68
	—
Number of Official Diners	125
Other Persons partaking of some of the Food	30
Total Number of Persons eating some part of Food	155
Total Known Cases of Food Poisoning	68
Percentage of all Diners affected (68 out of 155)	43·9
Percentage of Official Diners only affected (63 out of 125)	50·4

As previously stated, the onsets varied considerably, but on going carefully through the history of the sixty-four Borough patients the onsets seem to fall roughly into the following sub-divisions :—

Less than 24 hours	15
About 24 hours	23
About 36 hours	18
About 48 hours	5
Over 48 hours	3

It will be seen from the above table that the majority of the onsets seem to have occurred within twenty-four hours or thereabouts of partaking of the suspected food.

All the sufferers were men, most of them in the prime of life. Their exact ages were not ascertained.

Although no case ended fatally, several of the men were very ill. All were nursed at home, except one sergeant who

became so ill as to necessitate his removal to Northampton General Hospital, where he remained for sixteen days. Most of the police victims were off duty for about a fortnight.

Before concluding, it may be of interest to mention that *Salmonella aertrycke*, one of the Gaertner group of food poisoning organisms, is a frequent cause of outbreaks in England. The Annual Reports of the Chief Medical Officer of the Ministry of Health reveal that during the fifteen years from 1923 to 1937 inclusive, food poisoning outbreaks due to *Salmonella* infections coming to the notice of the Ministry numbered 299, involving 4,418 cases and 124 deaths. 169 of these outbreaks (56·5 per cent.) were traced to *Bacillus aertrycke*.

This organism was originally isolated by De Nobele in an outbreak of food poisoning at Aertrycke, in Belgium, in 1898.

Food and
Drugs
(Adultera-
tion) Act,
1928

327 samples (including 64 informal) were taken under this Act by the sanitary inspectors and submitted to the Public Analyst. The nature of the samples is given in detail in Table 12 (page 99). Thirteen of them (4·0 per cent.) were found to be not genuine, a figure slightly lower than the average. All the thirteen defaulting ones were official samples of milk and were dealt with as follows:—

Sample No. 11. A milk found to contain 2·2 per cent. added water. On instructions of the Executive Committee of the Public Health Committee, a warning letter was sent by the Town Clerk.

No. 28. 16·0 per cent. deficient in milk-fat. Case dismissed on payment of 4s. 0d. costs.

No. 59. 2·0 per cent. deficient in milk-fat. Warned.

No. 99. 4·0 per cent. deficient in milk-fat. Warned.

No. 104. 21·3 per cent. deficient in milk-fat. Dismissed under Probation Act on payment of £2 2s. 0d. costs.

No. 112. 9·0 per cent. deficient in milk-fat. Case dismissed.

No. 114. 17·3 per cent. deficient in milk-fat. Case dismissed.

No. 115. 6·7 per cent. deficient in milk-fat. Case dismissed.

No. 117. 19·0 per cent. deficient in milk-fat. Case dismissed.

No. 118. 11·3 per cent. deficient in milk-fat and contained 5·4 per cent. added water. Fined £3.

(Nos. 112, 114, 115, 117, and 118 were taken from wholesalers supplying the vendor of sample No. 104).

No. 125. 10·0 per cent. deficient in milk-fat. Fined £1.

No. 201. 9·3 per cent. deficient in milk-fat. Fined £1.

No. 232. 9·7 per cent. deficient in milk-fat. Fined 10s. 0d.

The average fat content of the 192 samples of genuine milk was 3·63 per cent. and the non-fatty solids 8·79, both figures well above the minimum standard.

All the milk samples sent for analysis were examined for the presence of preservative, but none was detected. At one time it was a practice to add certain "preservatives" to make the milk keep sweet longer, but this practice has been abandoned. Cleanliness is the best method for making the milk keep sweet.

No infringements of the Public Health (Preservatives, &c., in Food) Regulations, 1925 to 1927, came to the notice of the Department during the year. Preserva-
tives, etc.

No action was taken under the Artificial Cream Act, 1929, the Public Health (Condensed Milk) Regulations, 1923 and 1927, or the Public Health (Dried Milk) Regulations, 1923 and 1927.

All chemical analysis required by the Local Authority is carried out by the Public Analyst to the Borough, A. Prideaux Davson, Esq., A.R.C.Sc. (Lond.), F.I.C., F.C.S., Public Analyst's Laboratory, The Public Health Centre, Grange Road, Bermondsey, London, S.E.1. Chemical
Work

The bacteriological work in connection with the outbreak of food poisoning mentioned on pages 43 to 48 was performed by W. M. Scott, Esq., M.D., at the Ministry of Health Pathological Laboratory, Dudley House, Endell Street, London, W.C.2. Bacterio-
logical
Work

The examination of milk for bacterial count was performed at the Pathological Laboratory of Northampton General Hospital, and for the presence of the tubercle bacillus at the Lister Institute of Preventive Medicine, London.

No special action was taken in connection with the dissemination of knowledge regarding nutrition or the relative values of food, beyond what is done in connection with the carrying out of the maternity and child welfare scheme. Encouragement is given to the campaign for drinking more milk. The amount of milk issued free by the Maternity and Child Welfare Committee continues to rise year after year, as little restriction is put upon the issue so long as the applicant comes within the scale of income adopted by the Committee. There is no medical examination which the applicant has to pass before being granted the milk; the mother or child is recommended for it by one of the health visitors or by one of the ladies on the Milk Sub-Committee. Talks on food values are given by health visitors and the ladies of the Voluntary Committee at the weekly sessions of the infant welfare centres. Nutrition

Shell-fish
(Molluscan)

In my last report I mentioned the danger which is incurred in consuming raw infected shell-fish and I said it was the object of the Ministry of Health and the Ministry of Agriculture and Fisheries that no infected shell-fish should be on sale. So far as Northampton is concerned the object is probably achieved as to the best of my knowledge no shell-fish other than that from authorised layings is distributed in the Town. The shell-fish sold in the Borough is chiefly derived from layings at the following places :—

Oysters	Whitstable, Kent ; Colchester, Essex ; American Blue Points (via Liverpool).
Mussels	Wells, Norfolk.
Winkles	King's Lynn, Norfolk ; Lympstone, Devon ; West Mersea, Colchester, Essex.
Cockles	King's Lynn, Norfolk.
Whelks	King's Lynn, Norfolk.
Crabs	Sea Houses, Northumberland ; Flamborough, Yorkshire ; Cromer, Norfolk.
Lobsters	Fraserburgh, Aberdeenshire ; Mevagissey, Cornwall.

No action was taken by the Local Authority under the Public Health (Shell-fish) Regulations, 1934, or the Public Health (Cleansing of Shell-fish) Act, 1932.

Watercress

It is estimated that about seventy tons of watercress is sold annually in Northampton. The chief sources of supply are Berkhamsted, Bourne End, and Watford in Hertfordshire, Andover in Hampshire, and Stamford in Lincolnshire. As in the case of shell-fish, there has never been any cause or reason to suspect the purity of the supply.

VI.—PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES

“ Zymotic
Deaths ”

The term “ zymotic death-rate ” has not quite the same significance it once had. When the term was first used it was thought there was some relation between “ zymotic diseases ” and fermentive processes. We know now these diseases are caused by bacteria (germs) though the causative organism in some of them has not been definitely settled. Be that as it may, the “ zymotic death-rate ” is still a fairly good guide to the sanitary state of a given area.

During 1938, fourteen deaths were ascribed to the so-called “ zymotic diseases,” giving a “ zymotic death-rate ” of 0·15 per thousand living, compared with 0·16 for the previous year :—

	NUMBER OF DEATHS.	DEATH- RATES.
Diarrhœa (under two years)	6	0·06
Diphtheria	7	0·07
Enteric Fever	0	0·00
Measles	0	0·00
Scarlet Fever	1	0·01
Smallpox	0	0·00
Whooping Cough	0	0·00
Each of these diseases is dealt with separately in the next three or four pages.		

As these are not included in the list of diseases notifiable under the Public Health Act, our knowledge of their incidence is not very exact, but from the weekly returns of suspected infectious disease furnished by head teachers of public elementary schools only fifty-eight cases or suspected cases of measles were reported, compared with 1,481 during 1937. One case of measles was treated at the Borough Infectious Diseases Hospital, Harborough Road. No death was attributed to measles. The death-rate for England and Wales was 0·04. No serum was used either as a prophylactic or in the treatment of measles.

Measles and
Whooping
Cough

Whooping cough was also at its lowest ebb, only six cases or suspected cases being reported and no deaths were ascribed to this cause. For the country the death-rate was 0·03.

It is many years since we had such a small number of cases of measles and whooping cough, both of which can be very fatal to young infants.

Six children under two years of age died from enteritis, giving a death-rate from this cause of 5·0 per thousand live births registered. The corresponding figure for England and Wales was 5·5. I have on former occasions remarked on the decrease of infantile diarrhœa in this country during the present century, one of the causes being the decrease in the number of flies which polluted food, especially the unprotected food of infants. Of course, there have been other factors at work to bring about the present position, but the absence of flies is one of the most important.

Diarrhœa
and
Enteritis

Influenza is also not notifiable. The small number of deaths in connection with which influenza was mentioned would lead one to believe 1938 was not an “influenza year.” There were only seven deaths attributed to this cause, including five where death was said to be due to influenzal pneumonia, compared with a total of thirty-two in 1937. The death-rate from influenza was 0·07, compared with 0·11 for England and Wales. All the local deaths took place in the first five months of the year.

Influenza

Cerebro-spinal Fever

There were five notifications of cerebro-spinal fever which included three out-of-town cases brought in for treatment but not notified elsewhere. Four were males and one a female. The ages ranged from nine months to thirty-six years. All were treated at Northampton General Hospital where one—a child aged one year—died. We forwarded reports to the Ministry of Health on three cases where serum was administered at the General Hospital; all these recovered.

Acute Poliomyelitis

We received two notifications of acute poliomyelitis (infantile paralysis) relating to children aged nine months and fourteen years respectively. One case was mild and treated at home; the other was first treated at the General Hospital and later transferred to Manfield Hospital.

Malaria

One case of malaria was notified from the General Hospital. This related to a soldier who had been stationed in India but had been in England for nearly a year. He had suffered from attacks of fever while in India. The parasite of malaria was found to be present in his blood on 13th August, and he was transferred to Millbank Hospital, London, five days later.

Enterica

Two notifications of enterica were received, both referring to outside cases brought to Northampton General Hospital for treatment but not notified in their own areas. One was a typhoid, the other paratyphoid B. Both were females (one aged thirty-two years, the other forty-seven) and both recovered. The attack-rate for the Borough was 0·02, compared with 0·03 for England and Wales.

Erysipelas

Twenty-five notifications of erysipelas, including two from out of Town, were received, compared with twenty-one last year, which was the smallest number recorded by us since notification was introduced in 1889. The attack-rate was 0·26; that for England and Wales 0·40. Three of the patients were treated at the General Hospital and two at St. Edmund's Hospital. Two deaths were ascribed to erysipelas, one being a non-resident.

Chickenpox

This disease is only notifiable under special conditions, such as the presence of smallpox, consequently our knowledge of its incidence is not very precise, but from weekly returns furnished by head teachers of public elementary schools there were 335 cases or suspected cases of chickenpox. For some time there has been a decline in its incidence in the schools and at the time of writing (March, 1939) it is almost absent. From the end of July to the end of the year only fifteen cases were reported.

The three Public Vaccinators for the Borough remain as Vaccination for some years past, viz :—

Dr. E. Robertson, 220, Kettering Road ;

Dr. J. Cullen, 5, St. Matthew's Parade ;

Dr. H. F. Percival, 2, Spencer Parade.

These officers cover for vaccination purposes the same areas they serve for medical out-relief. (*See page 16*).

The Medical Officer of St. Edmund's Hospital also acts as Vaccinator.

Mr. F. Taylor and Mr. R. Bennett still officiate as Vaccination Officers. From the returns furnished by them it appears that of the 1,519 infants whose births were registered in the Borough during 1937, only 114 were successfully vaccinated, equal to 7·5 per cent.

During 1938, no vaccinations were performed by the Medical Officer of Health under the Public Health (Smallpox Prevention) Regulations, 1917.

No case of smallpox or suspected smallpox came to the notice of the Department during 1938. Eighteen were notified in England and Wales, where two deaths were attributed to smallpox. Smallpox

We received 145 notifications of scarlet fever, compared with eighty-nine during the previous year, giving an attack-rate of 1·50. For England and Wales the figure was 2·41. Sixty-two were males and eighty-three females. 105 of the notifications related to school children, 103 attending public elementary schools. 112 cases were removed to the Borough Infectious Diseases Hospital where, after a period of observation, twenty-two were found to be not suffering from scarlet fever. The death of a boy aged five years was attributed to this cause, giving a rate of 0·01, the same as for England and Wales. Most of the cases were of a very mild character. Scarlet Fever

Diphtheria, which has been on the increase for the last two years, was responsible for eighty-eight notifications, including two from out of Town, giving an attack-rate of 0·91, compared with 1·58 for England and Wales. Thirty-nine of the patients were males and forty-nine females. The ages ranged from one to forty-five years. Fifty-three of the notifications referred to children attending public elementary schools. The brunt of the incidence fell on Vernon Terrace School from amongst whose scholars we received seventeen notifications. Barry Road supplied eight, Bective five, Kingsthorpe Grove five, and St. George's Intermediate three ; no other school supplied more than two cases. Eighty were treated at the Borough Infectious Diseases Hospital, Harborough Road, including one previously admitted to the General Hospital. After a period of observation, Diphtheria

eighteen were found to be not suffering from diphtheria. As seen from the foregoing the school to suffer most severely was Vernon Terrace where, in spite of repeated examinations and swabbings of suspected contacts in the hope of picking up carriers, the disease continued on and off for some months. Immunisation was offered to all children in the Town, not to Vernon Terrace children only, but the response, as might be expected, was only poor, 312 children availing themselves of the opportunities offered and most of them attended at Vernon Terrace. As soon as the outbreak subsided, the applications for immunisation died away completely. The first prophylactic used was Burroughs Wellcome & Co's. T.A.M. given according to the makers' advice, viz:—three weekly injections of 1 c.c. Latterly this was changed to the same makers' A.P.T. in doses of 0·1 and 0·5 c.c. at fortnightly intervals. No complaints of any ill effects were received from either children or parents.

In spite of the small amount of immunisation practised in Northampton, we have had for some years a lower incidence and mortality than the best immunised towns in England and Wales. Seven Borough deaths were classified to this disease, giving a death-rate of 0·07 which is the same as that for the country.

162 phials of antitoxin (each of 8,000 units) for curative or preventive treatment were issued free to general practitioners in the Borough on application to the Public Health Department at a cost of £51, this being in addition to the antitoxin used at the Infectious Diseases Hospital. A small amount of diphtheria prophylactic was also supplied free to doctors.

Pneumonia

120 notifications of pneumonia were received (twenty-five less than in 1937), giving an attack-rate of 1·24, compared with 1·10 for England and Wales. The incidence fell twice as heavily on males as females—eighty-one to thirty-nine. The disease was classified as influenzal in fifteen instances and broncho-pneumonia in eleven, leaving ninety-four for all other forms. Thirteen were treated at the General Hospital and five at St. Edmund's Hospital. Two were nursed at home by the Queen's nurses at the expense of the Public Health Committee. In addition, there were nine deaths amongst unnotified persons, bringing the total of known cases up to 129.

Forty-seven deaths were attributed to this cause, including twenty-one from broncho-pneumonia, twenty-one from lobar pneumonia, and five following influenza, making the death-rate 0·49.

Borough Hospitals

INFECTIOUS DISEASES HOSPITAL, HARBOROUGH ROAD. A full description of this hospital appeared in my report for 1930 and further reference is made to it on page 14. Table

15 (page 101) gives the statistics for 1938. In spite of some increase in the incidence of scarlet fever and diphtheria during 1938, the hospital was never half full. The highest number of patients under treatment at any given time was forty-nine on five days between 28th January and 6th February. The average number was 21·8.

I think more use might be made of the hospital for the treatment of cases of pneumonia, etc., requiring skilled nursing, the only difficulty being that of providing sufficient staff at short notice. We do not keep any surplus staff and the sudden call for two or three extra nurses where the number is strictly limited might put a strain on the establishment which could not be met at the moment.

TUBERCULOSIS HOSPITAL, WELFORD ROAD. Reference should be made to the reports for 1930 onwards and to pages 15 and 72 of this report. This hospital, with nominal accommodation for thirty-two patients, was again made good use of, the average number of occupied beds being 30·8.

The small huts in the grounds are not suitable for occupation during the winter months. There is now little prejudice against this hospital, in fact some patients prefer to go there in preference to being sent farther away from home.

SMALLPOX HOSPITAL, MERE WAY. This hospital has been closed for eight years but is visited weekly by a porter from Harborough Road Hospital and maintained in such a state as to be fit to be opened for the reception of patients at a few hours' notice. For description of site, etc., *see* report for 1930, page 14. (*See also* page 15 of this report).

Last year I said that the hospital had been selected as one in connection with air raids and I mentioned several improvements which would be necessary to fit it for that purpose. Owing to changes in the hospital scheme in case of emergency, none of the work outlined has been undertaken.

ST. EDMUND'S HOSPITAL, WELLINGBOROUGH ROAD. This hospital containing 191 beds, of which 162 were occupied on 31st December, 1938, not having been appropriated under the Local Government Act, 1929, is under the management of the Public Assistance Committee as part of a "mixed institution." The patients are chiefly chronic and infirm cases or persons suffering from inoperable cancer, etc. Some of them have been there for many years. The nursing and attention they receive is of such a satisfactory character that there is seldom many empty beds. The maternity department is now a most efficient part of the institution and there are signs which lead one to believe that in the future more use will be made of it. Women whose home conditions are unsuitable for confinement can be admitted to St. Edmund's Hospital through the Maternity and Child Welfare Committee without having to apply to the relieving officers. This is an excellent arrangement and,

together with the good treatment patients receive, is tending to popularise the maternity department and leading to the admission of more patients. For normal confinements it would be hard to find a better place. (*See also page 15*).

Puerperal Pyrexia

There were thirty-three notifications of puerperal pyrexia which included sixteen out-of-town cases not notified in their own areas. Twenty-three were institutional cases, eight occurred in the practices of doctors, and two were midwives' cases. Thirty were treated at the General Hospital. The attack-rate was 26·68 per thousand total births. The corresponding rate for England and Wales was 14·42. All the Borough cases recovered. As mentioned in my last report, the distinction between puerperal fever and puerperal pyrexia ceased to exist as from the coming into force of the Public Health Act, 1936, on 1st October, 1937. Since that date there has been one classification of these conditions, viz :—puerperal pyrexia.

Ophthalmia Neonatorum

Only two notifications of ophthalmia neonatorum were received, the smallest number since 1935. Both were institution cases. One was a severe attack due to the presence of Neisser's organism and was treated as an in-patient at the General Hospital, the only suitable place in Northampton for such a case. The other was much milder and no bacteriological examination was made of the eye discharge. Both recovered without any impairment of vision.

Venereal Diseases

126 Borough residents received treatment for the first time at the Special Clinic for venereal diseases at Northampton General Hospital, under the combined scheme worked in conjunction with the County Councils of Northamptonshire and Buckinghamshire. The classification of these new cases was as follows :—

CONDITION.	MALES.	FEMALES.	TOTAL.
Syphilis	18	26	44*
Gonorrhœa	22	7	29
Other than Venereal	31	22	53
Totals	71	55	126

(*Seventeen male and twenty-six female syphilis cases were of more than one year's standing).

From the returns furnished by the Senior Medical Officer of the Treatment Centre it appears that eight syphilis (three male and five female) and thirty gonorrhœa (twenty-two male and eight female) patients, including persons under treatment at the commencement of the year, carried out the full courses of treatment recommended by the specialists in charge of the Clinic and were discharged after final tests of cure.

On the other hand twelve syphilis patients (four males and eight females) and fourteen gonorrhœa patients (ten males and four females) ceased attending before completion of treatment or before final tests as to cure were made.

From the above figures it would appear that there is no increase in the incidence of venereal disease in the Borough, but rather is there a slight decrease. I say "it would appear" because one cannot be certain that the number of cases reporting for treatment at the Clinic is a true measure of the incidence of these diseases, but at the same time I believe it is as true a measure as we shall ever get. It is gratifying to note that the number of defaulters does not increase, which fact, as I have mentioned on previous occasions, is largely due to the efficient treatment given and the interest taken in the welfare of the patients by the officers conducting the clinic.

The total attendances made by Borough patients at the out-patient clinic were 4,040 and 159 days were spent in hospital by patients.

In the treatment of syphilis, 811 doses of approved arseno-benzene compounds (stabilarsan or sulfarsenol) were administered, and also 1,508 doses of other preparations.

In connection with the scheme, 840 specimens were examined by the Pathologist at a cost of £196 12s. 0d. ; 476 specimens were on behalf of the Treatment Centre, 277 for hospitals and other institutions, and 87 for local practitioners.

The Borough Council makes an annual grant of £23 to the British Social Hygiene Council for propaganda purposes.

Two deaths were certified as due to syphilis.

In my Annual Report for 1930 (pages 47 to 49) I gave a general survey of the cancer problem as it has affected Northampton during the past forty years, calling attention to the apparent increase in the disease and mentioning several factors which had led to the greatly increased death-rate from cancer since the commencement of the century. At the present time a Bill is before Parliament and expected to become law during 1939 which will call upon local authorities to take a more active part in the diagnosis and treatment of cancer by the setting up, in conjunction with certain voluntary hospitals, of cancer centres where the latest improvements (including radium) for treatment will be available. Up to the time of writing not much headway has been made in explaining the cause of cancerous growths. As regards treatment, the only hope seems to lie in early treatment and here the efforts of the surgeons are often frustrated by the patient himself or herself who, suspecting something wrong, fears to know the truth. It is scarcely probable that any anti-cancer campaign will have very beneficial results amongst such people; in fact I am of the opinion such campaigns may do definite harm by engendering

Cancer

a fear in persons who are not suffering from the disease. I do not think it is wise to be for ever parading cancer or tuberculosis before the public.

Two tables dealing with cancer appear on pages 102 and 103. Table 17 gives the deaths according to age and sex incidence since 1911 and Table 18 according to the part of the body principally affected during the last eight years. The number of local deaths ascribed to malignant disease during 1938 was 157 (75 males and 82 females) compared with 179 in 1937. The local death-rate was 1.63; that for England and Wales was 1.67.

With an ever-increasing number of people living to a cancerous age, together with improved methods of diagnosis, it is not to be expected that we shall see any fall in the death-rate from cancer, at least not until some much more effective methods of treatment are available.

No investigations on the lines suggested in the Ministry of Health's series of circulars have been undertaken by the Public Health Department.

Prevention of Blindness

The information required by the Ministry of Health will be found in the paragraph headed "Blind Persons" on page 21.

Tuberculosis

Dr. N. B. Laughton, the Clinical Tuberculosis Officer, presents the twentieth annual report of the work accomplished in his Department (*see* Appendix I., pages 65 to 80). When the first report of this series was issued the tuberculosis death-rate (both forms) in the Borough was 1.56. Now it has fallen to 0.84 per thousand living.

In my last report I had to call attention to the rise in the number of notifications of tuberculosis, both pulmonary and non-pulmonary. If such a state of things was going to continue, the outlook would be very serious. Happily it has not continued, the number of notifications for 1938 being 103 (76 pulmonary and 27 non-pulmonary) compared with 127 for 1937. In other words, the figures have returned to or about the normal.

Of the many "cures" for this disease which have been tried during the last half century, artificial pneumothorax at present holds the first place, *i.e.*, in conjunction with sanatorium treatment. The more heroic surgical measures are only suitable for a very small proportion of the cases met with at the dispensary or the sanatorium.

The Care Committee continued to exercise its functions which largely consist in visiting notified persons and offering additional help where this is considered necessary. For this purpose each member of the Committee makes himself or herself responsible for a certain ward in the Town (generally

the one in which the member resides) ; thus close contact is maintained between the Committee and the patients to the great satisfaction of the latter.

The total tuberculosis death-rate in Northampton for 1938 was 0·84 (respiratory 0·72 ; other forms 0·12), which is 0·12 above the figure for 1937 and considerably above the rate for England and Wales, which for 1938 was 0·63 (respiratory 0·53 ; other forms 0·10).

Table 19 (page 104) gives particulars of clinical bacteriology, *i.e.*, relating to diphtheria or suspected diphtheria, enterica, and tuberculosis. As in former years, the bacteriological examinations in connection with the work of the Tuberculosis Dispensary were made in the Dispensary Laboratory. Most of the bacteriological work for the Infectious Diseases Hospital and that performed for general practitioners, also for the venereal diseases scheme, was carried out in the Pathological Department at Northampton General Hospital. To these must be added the examination of milks sold in the Town (both ordinary and designated) for bacteriological count and to see that the designated samples conform to the standards laid down in the Milk (Special Designations) Orders, 1936 and 1938. The examination of milk for the presence of the tubercle bacillus is performed by the Lister Institute of Preventive Medicine, London, and the weekly water examinations are made by Professor R. T. Hewlett, London.

Bacteriology

Table 16 (page 101) shews the number of articles stoved each month at the Disinfecting Station, St. Andrew's Road.

Disinfection,
etc.

No special provision exists for the cleansing and disinfection of verminous persons, other than that at St. Edmund's Hospital, Wellingborough Road, which is chiefly, if not entirely, used for the cleansing and disinfection of casuals. The Department does not receive applications for such treatment.

No anti-mosquito measures were carried out, as none were required, and no case of locally-infected malaria came to our notice during the year.

VII.—MATERNITY AND CHILD WELFARE

The eighteenth annual report of the Assistant Medical Officer for Maternity and Child Welfare on the work of that Department will be found in Appendix II., pages 81 to 90, where it follows the lines of its predecessors.

General
Remarks

I regret to say that Miss L. M. Islip, the Senior Health Visitor, who had been in the Department since January, 1915, and had seen the work of infant welfare in Northampton grow from almost nothing to its present volume and had always been

a most efficient officer, liked and trusted by all, both staff and patients, was obliged to resign owing to a breakdown in health. She had been off duty since October, 1937, and finally ceased to be a member of the staff on 13th April, 1938.

In consequence of the loss of Miss Islip, the Committee appointed Miss A. E. Norgate as health visitor and she commenced duties on 9th May. Subsequently an additional clerk (Miss G. E. Wills) and health visitor (Miss E. Lewis) were appointed and commenced on 11th July and 15th August respectively. A list of the whole-time officers appears on page 8. The staff of the Maternity and Child Welfare Department now consists of one medical officer, seven health visitors, and two clerks.

Infant Mortality

Again we are able to record a low infantile death-rate, viz :—46·6 per thousand live births registered (our fourth lowest ever recorded), as against 53 for England and Wales and 57 for the great towns. Previous low rates for Northampton were :—39·9 in 1936 (a record), 45·1 in 1933, and 45·8 in 1934. Little impression has so far been made in reducing the number of neo-natal deaths, frequently due to prematurity, and until this is done it does not appear likely that the infantile death-rate will fall much below its present figure.

Maternal Mortality

There were no maternal deaths amongst Northampton women during 1938, in fact we have had none between October, 1937, and May, 1939. According to our records there have been odd years when such deaths have been few, one or two, but on no previous occasion has a year passed without a death amongst Northampton mothers. While one must not claim too much from such a circumstance, owing to the small figures involved, the result cannot be otherwise than gratifying to all concerned. The maternal mortality rate per thousand total births registered for England and Wales was 2·97 (sepsis 0·86 ; other forms 2·11).

A new table (No. 20 on page 105) has been introduced this year recording the maternal mortality in Northampton each year since 1881.

Toddlers

Children aged one to five years, *i.e.*, the pre-school age-group, continue to receive attention from the Maternity and Child Welfare Committee and also from the Education Committee, through the medium of the splendid Nursery School in Silver Street. Formerly there was a gap in a child's life when it was under the care of nobody outside its own parents, in other words it had ceased to be under the supervision of the Maternity and Child Welfare Committee on attaining the age of one year but had to wait until it became of school age, *i.e.*, five years, before coming under the care of the Education Com-

mittee. This is now remedied by the inclusion of pre-school children (sometimes called toddlers) in the work of the Infant Welfare Department. Children in this age-group are visited by the health visitors and the parent has only to bring the child to the toddlers' clinic to receive advice. All this work cannot fail to produce good results.

In my report for 1937 I explained at length the provisions of the Act and the steps taken to bring them into operation in Northampton. The arrangements have worked smoothly and satisfactorily, and have not required any appreciable alteration beyond the reduction from seven to five in the number of midwives employed by the Local Branch of the Queen's Institute of District Nursing as from 1st August, 1938. It was impossible to foretell, when the scheme was inaugurated, what effect the opening of the Barratt Maternity Home would have on domiciliary practice, though it was certain to diminish the number of home cases. When a Sub-Committee of the Maternity and Child Welfare Committee met representatives of the Northampton Queen's Institute of District Nursing on 11th March, 1938, to review the working of the agreement, a statement was submitted shewing that the number of domiciliary births attended by midwives was 954 in 1936 and 805 in 1937; 496 were attended by the Institute midwives in 1936 and only 392 in 1937. This reduction was occasioned by the continuance and, in fact, a slight increase in the practices of independent midwives in the Borough and by the increasing number of births occurring in institutions, viz:—179 Borough cases in 1935, 288 in 1936, and 417 in 1937. It was thought that the number of domiciliary cases to be attended by the Institute midwives would not exceed 500 in 1938 and that the needs of the Borough would be met by the employment by the Institute of five midwives instead of seven and the reduction of the contribution of the Borough Council to the Queen's Institute from £800 to £450 per annum. The Town Clerk was asked to communicate with the Minister of Health upon the matter and on 1st April he received a letter stating that the Minister had no observations to offer. The arrangement with the Queen's Institute was amended as from 1st August, 1938, with a proviso that the agreement may be modified further by mutual consent if the number of domiciliary cases attended by the midwives of the Queen's Institute rose or fell above or below 500 in the future by a margin of more than ten per cent.

Midwives
Act, 1936

If a low maternal mortality figure is the object of the Act, the fact that there were no maternal deaths amongst Borough women during 1938 would go to shew, or at least to suggest, that the object has been accomplished for the time being.

Provision is made in Section 5 of the Act for compensating midwives who give notice to the local supervising authority by 30th July, 1939, of their intention to cease practising by voluntarily surrendering their certificates of registration to the local supervising authority. By the end of 1938 two midwives had surrendered their certificates and received compensation, one in the sum of £425 and the other receiving £120. Both names were removed from the roll of practising midwives by the Central Midwives Board.

Up to the end of the year the Minister had made no Order under Section 6 prohibiting unqualified persons in the Borough from acting as maternity nurses for gain or reward. That will come later, when we see how many midwives give notice of surrendering their certificates; the time for giving such notice expires on 30th July, 1939, *i.e.*, three years after the coming into operation of the Act.

Institutional Provision for Mothers and Children

No change was made in the provision of institutional accommodation for unmarried mothers, illegitimate infants, and homeless children, described on page 18 of my report for 1930.

At the end of the year there were nine registered nursing homes in the Borough, of which one is a mixed home for medical, surgical, and maternity cases, two are registered for maternity cases only, one is a home for mothers and babies, and five are registered for the admission of aged and infirm persons.

Health Visitors

As mentioned in the opening paragraph of this section, a health visitor commenced duty on 9th May consequent on the resignation of Miss Islip, the Senior Health Visitor, and another took up duty on 15th August. The number of whole-time health visitors employed by the Maternity and Child Welfare Committee at the end of the year was seven (*see* list on page 8).

(*See also* paragraph on " Home Visitation " on page 82).

Child Life Protection

The Maternity and Child Welfare Committee being the authority appointed to administer locally the law relating to boarded-out children, the health visitors continued to act as infant life protection visitors, visiting children up to the age of nine years who are maintained for gain or reward by persons other than relatives. All the foster-mothers carried out their duties satisfactorily. (Statistics appear on page 87).

Dental and Orthopædic Treatment

Dental treatment for mothers and pre-school children is given by the Senior School Dentist through an arrangement between the Borough Education Committee and the Maternity and Child Welfare Committee. The arrangement works satisfactorily. (*See also* paragraph on page 86).

Particulars relating to the provision of specialist ortho-pædic treatment at Manfield Hospital were given in my report for 1930, page 20. The Medical Officer of Health, together with the Medical Officers of the School Clinic and Maternity and Child Welfare and Tuberculosis Departments, keeps in close touch with the hospital. Dr. Bebbington's report on the cases treated under the maternity and child welfare scheme will be found on page 82.

Cases of otorrhœa (ear discharge) which occasionally occur in infants or toddlers from a variety of causes (teething, etc.) are referred to the School Clinic for treatment by a very sound arrangement between the Education Authority and the Maternity and Child Welfare Committee. Most cases of otorrhœa will clear up if properly and consistently treated. The prognosis is not quite so hopeful in old standing cases hence the desirability of commencing treatment early and persisting in it. I am well aware it involves a little trouble, but the result is worth while. Chronic otorrhœa is a matter not to be regarded lightly. During the year, twenty-two cases, whose ages ranged from two months to four years nine months, were referred to the School Clinic, making 182 attendances, with the result that twelve were cured, *i.e.*, the discharge ceased and there was no remaining smell from the ear, two were referred to hospital for operation, and eight were still under treatment at the end of the year.

Otorrhœa,
etc.

A similar arrangement is in operation whereby children under school age are accepted at the School Clinic for minor treatment of the eyes. Four such cases attended in 1938.

Milk is given free to mothers and to children up to the age of five years where it is considered to be necessary. The applicants are not examined and certified as requiring milk by the Assistant Medical Officer, in fact it is given to people who do not attend the clinic or come in contact with the Medical Officer. In such circumstances it is difficult to assess the results. It is all pasteurised and is supplied by one or other of the large distributors under contract with the Maternity and Child Welfare Committee. (*See also* paragraph on "Milk," page 86).

Milk for
Mothers and
Children

A large amount of useful work is carried out by the Northampton Maternity and Infant Welfare Voluntary Association. Though there was no "baby week" or exhibition in the Guildhall, other very important work was carried on at the ten centres now held in different parts of the Town. The scheme of giving a "leaving certificate" to mothers who have a record of long attendance at one of the centres appears to be appreci-

Voluntary
Workers

ated. The Town was very successful in the National Parentcraft Competitions, one competitor (a member of the Abington Avenue Centre) taking the Rhondda Shield with the remarkably high figure of 96 per cent. of the available marks. Mothers from Broadmead Centre also distinguished themselves by gaining six honours and three other certificates. The centre held at St. Giles' Street also took honours in three subjects, one member of the staff of this centre taking first place in England for an essay. I think the foregoing is sufficient to shew that the voluntary workers are keeping Northampton well to the front in matters relating to the welfare of mothers and infants.

See also paragraph on page 83 in Appendix II.

See Appendix III. (page 91) for the usual statistical tables in connection with the Medical Officer of Health's report.

Appendix I. (page 65) deals with the work of the Tuberculosis Department and Appendix II. (page 81) with the Maternity and Child Welfare Department.

APPENDIX I.

REPORT OF THE CLINICAL TUBERCULOSIS
OFFICER FOR THE YEAR 1938

HEALTH CLINIC,
2, HAZELWOOD ROAD,
NORTHAMPTON.
APRIL, 1939.

To the Medical Officer of Health and Chief Tuberculosis Officer.

SIR,

I beg to submit my report on the anti-tuberculosis scheme for the year 1938.

Your obedient Servant,
N. B. LAUGHTON.

During the year, 103 persons were notified as suffering from tuberculosis. Of these, 76 were pulmonary and 27 non-pulmonary. The figures are considerably less than those for 1937 (when they were unduly high) and comparable with those of 1936. Notifications

The disposal of notified patients is shewn in Table T7 (page 79) and their age groups in Table T8 (page 80).

The number of deaths and the death-rates from tuberculosis per thousand of the population in 1938 were as follow :— Deaths

	No. of Deaths.	Death-rates.
Respiratory Tuberculosis	69	0·72
Other Forms	12	0·12
Totals	81	0·84

The death-rates for the previous year for pulmonary and other forms of tuberculosis were 0·62 and 0·10 respectively. The figures for 1938, therefore, shew a rise.

Under the Public Health (Tuberculosis) Regulations, 1930, the names of fifty-two notified persons were removed from the register in 1938, made up as follows :— Revision of Register

- (a) Twenty-five in which the diagnosis had not been established, and
- (b) Twenty-seven in which the patient had attained a condition which might be regarded as recovered.

Particulars of the cases were submitted to the Medical Officer of Health who decided as to their suitability for deletion under one of these groups.

On 31st December, 1938, there were 558 cases on the Medical Officer of Health's register, 410 being pulmonary and 148 non-pulmonary.

X-ray Exam- inations

Radiography continues to be of inestimable value in dispensary and hospital work. Since the installation of the X-ray plant early in 1932 this part of the work has increased appreciably year by year. In 1938 screen examinations numbered 689 and 421 photographs were taken, a total of 1,110 examinations. Investigation by this means is used constantly in the diagnosis of tuberculosis, in its differentiation from other conditions, in assessing the most suitable treatment and observing its results, and in the control of treatment by artificial pneumothorax. It often enables tuberculosis to be detected at the vital stage when clinical signs are still absent, or definitely excludes it, in either case dispensing with a period of observation.

Artificial Pneumo- thorax

Many methods and various remedies have been introduced from time to time for the treatment of tuberculosis, but only two have stood the eliminating test of time. One is that embodied in the general principles of sanatorium routine, particularly in the provision of adequate rest. The other is artificial pneumothorax. The second of these is dependent, of course, upon the first being fully carried out. It is dependent also upon administration under careful clinical and X-ray control to suitably selected patients. Unfortunately it is not applicable to patients in general, and its use is justifiable only in a comparatively small proportion of cases.

The number of patients under treatment by artificial pneumothorax continues to increase. During 1938, 35 cases were treated at the Dispensary and Welford Road Hospital. The total number of inductions and refills was 758, the average number of injections per patient being 22. In one case a natural obliteration of the cavity occurred and refills were discontinued ; good health has been maintained since. Another patient, in whom pneumothorax was induced successfully to stop severe and recurrent hæmorrhage, died later through the intervention of tuberculous meningitis.

At the end of the year the remaining 33 patients were progressing satisfactorily. They had been under treatment for varying periods, the majority from two to five years. They were for the most part intermediate cases as regards the stage of disease, with a few early cases and a few advanced. Twenty-seven of these patients were at work or able to work. (This is meant to include ordinary housework in the case of women

not otherwise employed). One was fit for part-time, and 5 were unfit for any work, 3 of the last group being still under institutional treatment. Thirty were without symptoms, except for shortness of breath on undue exertion in some instances. Sputum was absent in 30 cases, negative to tubercle bacilli in 1, and positive to tubercle bacilli in 2. (All the patients, with one exception, had originally a positive sputum). A full collapse of the lung was obtained in half of those treated, a satisfactory partial collapse in the remainder. Pleural effusion occurred in 4 patients, but without apparent detriment to their condition. No other complications occurred. These figures speak for themselves and should be considered in relation to the history of the average patient who has not had the advantage of this treatment. The beneficial results are so obvious that patients, quite unsuitable for it, often ask to have it done.

Dental treatment has been carried out at Welford Road Hospital when considered necessary. Conditions such as dental sepsis and pyorrhœa are detrimental to a patient's progress, reducing his capacity to resist the major disease. Twenty-four patients were treated by the visiting dentist and extractions numbered thirty-one.

Dental
Treatment

The provision of extra nourishment is a measure intended to help maintain the condition of patients and prevent the relapse which might follow poor nutrition and a lowered resistance. The tuberculous person suffers from a wasting disease and so needs more than the sustenance sufficient to keep others in good health. During the past year, 82 grants were made of butter, milk and eggs for periods of three months, and 45 patients received this benefit.

Extra
Nourishment

Under the existing scheme men do light work in the Corporation parks for 25 hours a week, and one woman is employed in the Transport Parcels Department. At the beginning of the year one woman and eleven men were so employed. The health of five broke down to such an extent that they had to come off the scheme. Six others were off work with illness for varying periods. Four men were taken on, and at the end of the year the number employed was ten men and one woman.

Park
Workers

The great importance of housing as a means of maintaining health and preventing the occurrence of tuberculosis has been emphasised in former reports. The benefits are apt to be overlooked because they are not obvious or recordable in the statistical sense. It may be said with assurance, however, that among the contacts of patients with pulmonary tuber-

Housing

culosis living in municipal houses, the likelihood of succumbing to the disease is, in the majority of cases, much less than in their previous homes. In December, 1938, the number of tuberculous persons living in Council houses was 152. Further improvement could be effected, however, by collaboration between the Public Health and Housing Committees so as to make the tenancy of Council houses by tuberculous families subject to such co-operation on the part of the latter as would best serve the interests of patients and public. A system of supervision of this kind has been tried elsewhere with success. It need involve no undesirable restrictions on those who are well-intentioned, and would ensure some control over the small but dangerous minority who ignore precautions and advice.

Care Work

In last year's report a summary was given of the constitution of the Tuberculosis Care Committee and the nature of its activities. A report by the Secretary (Miss I. M. Chick) of its work during the year 1938 has already been issued and it shews in very evident manner how much has been accomplished and how great is the need for the help that such a committee can give. One hears increasing echoes of appreciation on the part of stricken families for the interest and care that is being extended to them. One aspect of this work may be mentioned specially, and that is the effort to counter public ignorance about tuberculosis and the fear of it. These are strong deterrents to early diagnosis and treatment and obstacles in the prevention of the disease. Education of the public in these matters has been furthered during the winter months by the giving of film entertainments.

Tuberculosis and Employment

Employment is a question that is closely associated with the incidence and control of tuberculosis. In certain cases it may be a dominating factor. It is not yet generally appreciated that delay in diagnosis often deprives a man of the chance of ever being fit for any work. Nor is it fully realised what appalling bodily damage and economic loss may result from the bombardment by the tubercle bacillus at close range, as may occur when the undiagnosed case remains at work.

After institutional treatment (advisable in most cases) the position is different from what it was before. The patient, at least, has learned of the fatal consequences of delay and has been instructed in the manner of his living in the future, so as to avoid relapse and not endanger others. He has learned, too, the extent of his limitations, which may be small or may be considerable. If he is fortunate enough to suffer little or no incapacity he starts happily on a new phase. Employment, more often than not, is uppermost in his mind, and if fit for work, it may contribute greatly to his restitution. But too often his hopes are worn thin by disappointment, and some-

times by the dispiriting influence of ostracism, both in his work and in his social relations. This is, to say the least of it, poor reward for one who has spent many months away from home, co-operated successfully in an effort to get well again, and has come back prepared to adjust himself to a code of life that is modified, and often restricted, by new circumstances.

Admittedly not a large proportion of the cases notified with tuberculosis are able to regain an ordinary working capacity with a good prospect of maintaining it. One aim and endeavour of the tuberculosis service is to increase this number by early diagnosis and, when necessary, to give adequate treatment without undue delay. Those patients, having become again useful members of the community, should be given their chance. It is regrettable that they are often debarred from this by ignorance and misunderstanding.

One common misconception is that all present and past victims of tuberculosis have active disease and are infectious. Due recognition is not given to the fact that in a considerable proportion of those treated the disease has become quiescent. It is also commonly believed that every patient who has been on the tuberculosis register must be, *ipso facto*, an unfit person and, as a worker, undependable. The traditional view, too, that a light outdoor job is the only kind of work suitable for one who has had tuberculosis, still persists, unfortunately, in the public mind.

There is, nevertheless, a category of persons on the tuberculosis register who are capable of carrying on a remunerative occupation and of satisfying such essential requirements as should dispel the doubts of employers. These conditions are, firstly, a reasonable prospect of being able to work without risk of relapse, and secondly, an absence of risk of infection to co-workers. (It is assumed that work is carried on under healthy conditions and that no exceptional strain, mental or physical, is entailed). Information on these points with respect to any such person who seeks employment is readily obtainable, subject to his consent, from the Tuberculosis Department, where he is kept under supervision and asked to attend at regular intervals. Employment is not advised if it is likely to cause relapse. It is encouraged in those who are fit for it, and especially where it is of definite value in maintaining health. Those in this last class are not only deserving of work, they are needful of it. The deterioration brought about by their unemployment is a common cause of relapse. It vitally affects the safety of their near associates, and less directly the whole community.

Men and women, the majority in early life, who have fought their way back to health should not have to fight against any element that tends to desocialise them. It is in the interests of all, when such persons are able to work, and can do so without

risk of infection to others, that they be given the same opportunity as others. A removal of misunderstandings and a closer co-operation of employers with the Health Clinic would encourage patients to seek medical advice at an earlier stage and would suppress the detrimental influences of unemployment on those for whom occupation is so needful on medical grounds. Experience shews that employers are usually most hesitant to re-engage such persons, thus contributing to a stigma that should not exist, and sometimes to a relapse that might have been averted. If work could be given to those for whom it is so helpful and at the same time medical investigation urged in the case of workers who, on simple observation, shew signs suspicious of early tuberculosis, a step of real value might be achieved in the elimination of the disease.

Tuberculosis Dispensary

The work at the Dispensary increases year by year. X-ray examinations rose from 909 to 1,110. The figures for artificial pneumothorax were maintained and the number of patients treated by it increased. The number of attendances at the Dispensary (which increased by 35 per cent. the previous year) rose by a further 10 per cent. This occurred in spite of the fact that the average number of attendances per patient was less, the number of visits of those under general supervision having been rigorously reduced to the minimum. Examinations of patients for the purpose of diagnosis increased by 19 per cent., from 293 to 348. Domiciliary visiting, which has fallen much below what it should be in the last three or four years, was revived to a more satisfactory extent through the assistance of Dr. John Sullivan, who did locum duties during two months of the summer. One result of this extra visiting was that many patients were found fit for deletion from the tuberculosis register. Visiting by the Tuberculosis Health Visitor, however, has of necessity fallen far below what it should be. This is important work, and if less essential than that which now occupies so much of her time at the Clinic, it is regrettable that it cannot be covered.

What was stated in last year's report as to the need for assistance if the work of the anti-tuberculosis scheme is to be carried out properly applies more than ever. The reasons were given in that report for the curtailed and rushed work which present conditions make inevitable. The provision of an assistant medical officer for two months last year was of much help, but this was only for that period when extra work was added owing to the absence on holiday of the Medical Officer of Health and Dispensary staff. One can only repeat that if there is to be an efficient service the growing demands at Dispensary and Hospital on work and time need to be met by part-time medical assistance throughout the year.

A summary of work at the Dispensary is given below :—

Attendances :—

Total number	2,201
Patients attending :—	
Males	378
Females	380
	— 758
Average number of attendances per patient ..	2.9

Contacts :—

Total number of examinations	150
Individuals examined	123
Of these, 10 were subsequently notified.	

Examinations for diagnosis at request of general practitioners :—

Total number of examinations	348
Individuals examined	253
30 of these were found to have active tuberculosis.	

Visits by Tuberculosis Officer to patients and their homes

429

TUBERCULOSIS HEALTH VISITOR. Visits made by the Tuberculosis Nurse were as follow :—

Investigation in cases of :—

Pulmonary tuberculosis	68
Other forms	26
Deaths	9
	— 103

Re-visits and other investigations

694

Total

797

In addition to these investigations, the Tuberculosis Nurse attended at all Dispensary clinics and assisted in special treatment (*e.g.*, artificial pneumothorax) carried out there.

LABORATORY EXAMINATIONS. The results of laboratory examinations carried out at the Dispensary (including those of specimens from Welford Road Hospital) are given below :—

Cases investigated

439

Results of bacteriological examinations for tubercle bacilli in sputum, urine, etc. :—

Positive	103
Negative	442
	— 545

X-RAY EXAMINATIONS :—

Films	421
Screenings	689
	— 1,110

ARTIFICIAL PNEUMOTHORAX :—

Refills	661
Patients treated	32

Welford
Road
Hospital

Good use was made of the accommodation at Welford Road Hospital during the past year. The average number of occupied beds was 30·8. Treatment is based on the fundamental principles of physical and mental rest carried out under healthy open-air conditions with an ample and nutritious diet. Of subsidiary methods the most valuable is artificial pneumothorax (*see* page 66). Experience has shewn that, with very few exceptions, a period of prolonged rest at the commencement of treatment is essential as a basis for good recovery, whether or not any therapeutic measure of a special kind is adopted. Particular attention is paid to the educative aspect of treatment, and everything is done to stimulate the patients' own interest in their recovery and to prepare them for the difficult task of maintaining their health afterwards. They receive individual instruction to this end, and lectures are given once a month. The mental attitude of patients to the disease, and to the circumstances resulting from it, is a factor that often seriously influences recovery and requires re-orientation at an early stage of treatment. Ill-effects are apt to follow discouragement and introspection, and means to counter these are of definite curative value. The provision of more entertainment last year was very helpful in this direction.

Once again must be pointed out the fact that the accommodation for nurses and domestics remains, as it has been for many years, most inadequate and below the present-day standard. There is lacking that comfort and privacy, the opportunity for relaxation and detachment when off duty, which is due to the nursing profession. Especially is this needful when the social amenities of a large institution are absent, and when the shortage of nurses makes it difficult to maintain an efficient staff. Moreover, nurses cannot be expected to stay when so much better living conditions are offered them elsewhere.

A summary is given below of particulars respecting the treatment of patients at Welford Road Hospital:—

	Males.	Females.	Total.
Remaining at end of 1937 ..	12	17	29
Admitted	18	35	53
Treated	30	52	82
Discharged	12	27	39
Died	8	7	15
Remaining at end of 1938 ..	10	18	28

Condition on discharge :—

Quiescent	9
Much improved	18
Improved	4
No material improvement	4
Declining	4

The following figures refer to discharged patients :—

Average number of days in hospital	264
Average gain in weight	18 lbs.
Highest gain in weight	43 lbs.
Ages of patients	13 to 60 years (average 26 years)

Result of sputum examinations for tubercle bacilli :—

Admitted with sputum T.B.+	24
Admitted with sputum T.B.+, discharged T.B.— or no sputum	10
Admitted with sputum T.B.+, discharged T.B.+	14
Admitted with sputum T.B.—, discharged T.B.— or no sputum	15
Admitted with sputum T.B.—, discharged T.B.+	0

Artificial pneumothorax treatment :—

Patients treated in hospital	6
Number of inductions and refills	99

Dental treatment :—

Patients treated	24
Extractions	31

Below are the data with reference to the patients treated at Creton Sanatorium in 1938 :—

Creton
Sanatorium

	Males.	Females.	Total.
Remaining at end of 1937 ..	12	8	20
Admitted	12	6	18
Treated	24	14	38
Discharged	10	8	18
Died	3	1	4
Remaining at end of 1938 ..	11	5	16

Condition on discharge :—

Quiescent	2
Much improved	8
Improved	2
No material improvement	6

Manfield
Orthopædic
Hospital

Particulars of cases treated at Manfield Orthopædic Hospital and Shipman Convalescent Home are as follow :—

	Males.	Females.	Total.
Remaining at end of 1937 ..	9	4	13
Admitted	5	7	12
Treated	14	11	25
Discharged	6	6	12
Remaining at end of 1938 ..	8	5	13

Condition on discharge :—

Quiescent	9
Improved	3

Other
Institutions

One patient was maintained at Brompton Hospital Sanatorium, Frimley; one at Victoria Home for Invalid Children, Margate; one at Lord Mayor Treloar's Cripples' Hospital, Alton; one at Children's Convalescent Home, Broadstairs; one at Fairlight Sanatorium, Hastings; one at Children's Convalescent Home, Weston-super-Mare; one at Royal Sea Bathing Hospital, Margate; one at St. Michael's Home, Axbridge; and one at St. Mary's Convalescent Home, Birchington. One went privately to Creaton Sanatorium and one to Wensleydale Sanatorium, Aysgarth, Yorkshire.

Tuberculosis
Regulations,
1925

It was not necessary to take any action under the Public Health (Prevention of Tuberculosis) Regulations, 1925, which relate to persons suffering from pulmonary tuberculosis employed in the milk trade.

Public
Health Act,
1936

There was no case of compulsory removal to hospital of persons suffering from tuberculosis under Section 172 of the Public Health Act, 1936.

TABLE T1. NORTHAMPTON, 1938.

TUBERCULOSIS. CLASSIFICATION OF NEW CASES.

CLASSIFICATION.	NOTIFIED CASES.			DEATHS OF CASES NOT NOTIFIED.		
	M.	F.	TOTAL.	M.	F.	TOTAL.
Pulmonary :—						
Lung and Pleura	37	38	75	6	—	6
Larynx	1	—	1	—	—	—
	38	38	76*	6	—	6*
Meninges and Brain	—	—	—	1	2	3
Peritoneum and Intestines	—	5	5	—	—	—
Bones and Joints	4	4	8	—	1	1
Cervical Glands	5	5	10	—	—	—
Other Organs	3	1	4	1	1	2
Totals	50	53	103	8	4	12

*A total of 82 fresh cases of pulmonary tuberculosis.

TABLE T2. NORTHAMPTON, 1938.

PULMONARY TUBERCULOSIS INVESTIGATIONS. DURATION OF ILLNESS.

PERIOD.	NOTIFIED CASES.	DEATHS OF CASES NOT NOTIFIED.	TOTAL.
Under 6 months	38	1	39
Over 6 months and under 1 year	12	2	14
Over 1 year and under 2 years	6	—	6
Over 2 years and under 3 years	3	1	4
Over 3 years and under 4 years	3	—	3
Over 4 years and under 5 years	1	—	1
Over 5 years	8	—	8
Unascertained	5	2	7
Totals	76	6	82

TABLE T3. NORTHAMPTON, 1938.

PULMONARY TUBERCULOSIS INVESTIGATIONS. SEX AND STATE.

	MALES.	FEMALES.	TOTAL.
Single	11	26	37
Married	29	10	39
Widowed	1	1	2
Unascertained	3	1	4
Totals	44	38	82

TABLE T4. NORTHAMPTON, 1938.

PULMONARY TUBERCULOSIS INVESTIGATIONS. DEGREE OF HOME
ISOLATION FOUND.

	MALES.	FEMALES.	TOTAL.
Number having separate Bedrooms	9	15	24
Number having separate Beds (only)	2	1	3
Number having no Isolation	17	10	27
Number in Institutions	12	6	18
Unascertained	4	6	10
Totals	44	38	82

TABLE T5. NORTHAMPTON, 1938.

TUBERCULOSIS DEATHS. PERIOD ELAPSING BETWEEN NOTIFICATION
AND DEATH.

PERIOD BETWEEN NOTIFICATION AND DEATH.	MALES.	FEMALES.	TOTAL.
(1) PULMONARY TUBERCULOSIS :—			
Not notified	6	—	6
One month	7	3	10
1—6 months	2	5	7
6—12 months	5	4	9
12—18 months	5	—	5
18—24 months	2	4	6
2—3 years	3	3	6
3—4 years	2	—	2
4—5 years	—	—	—
5 years and over	8	10	18
Totals	40	29	69
(2) TUBERCULOSIS OTHER THAN PULMONARY :—			
Not notified	2	5	7
2—3 years	1	—	1
3—4 years	1	—	1
4—5 years	1	—	1
5 years and over	1	1	2
Totals	6	6	12

See footnote to Table T8.

TABLE T6. NORTHAMPTON, 1938.

PULMONARY TUBERCULOSIS. OCCUPATIONAL INCIDENCE AND MORTALITY.

OCCUPATION.	New Cases.	Deaths Registered	OCCUPATION.	New Cases.	Deaths Registered
Shoe Operatives :—			Insurance Agent	—	1
(a) Clicker	1	3	Labourer	—	1
(b) Laster	2	4	Leather Dresser . .	2	3
(c) Finisher	7	2	Licensed Victualler..	2	2
(d) Roughstuff and Pressman	2	—	Music Hall Artist . .	1	—
(e) Warehouse and General	2	5	Omnibus Driver	1	—
(f) Female Worker	12	10	Photographer	1	—
	26	24	Plasterer	—	1
Baker (Master)	—	1	Post Office Messenger Boy	1	—
Bar Attendant	1	—	Printer's Cutter	1	—
Billiard Saloon Attendant	1	—	Probationer Nurse . .	1	—
Bookbinder	1	1	Quarry Worker	1	—
Bricklayer	1	2	Railwayman	2	2
Butcher	1	1	Receptionist	1	—
Cattle Drover	1	—	Schoolchild	—	1
Chauffeur	—	1	School Teacher	1	—
Clerk	6	3	Seed Packer	1	—
Corporation Park Keeper	—	1	Shop Assistant	3	—
Corporation Timekeeper	—	1	Storekeeper	2	1
Domestic Servant . .	1	—	Store Manager (Assistant)	1	—
Draper	1	—	Toy Maker	1	—
Dress Machinist	1	1	Turf Commission Agent	—	1
Dressmaker	1	—	No Occupation	4	4
Engineer	—	1	Not Ascertained . .	1	—
Engineer's Pattern Maker	—	1			
Ex-soldier	1	1			
Farm Pupil	1	1			
Garage Mechanic . .	1	—	Totals	82	69
Hairdresser	1	—			
Housewife	8	12			

TABLE T7. NORTHAMPTON, 1938.

PULMONARY TUBERCULOSIS.

DISPOSAL OF NOTIFIED CASES.

CLASSIFICATION.	NUMBER.	PER CENT.
Received Residential Treatment at :—		
Creaton Sanatorium .....12		
Welford Road Hospital .....41		
Northampton General Hospital 3	59	77·6
St. Andrew's Hospital 2		
Fairlight Sanatorium 1		
Residential Treatment not considered necessary..	6	7·9
Refused Residential Treatment	4	5·3
Too ill for removal	4	5·3
Removed from area	2	2·6
Dead on receipt of notification	1	1·3
Totals	76	100·0

TABLE T8. NORTHAMPTON, 1938.

TUBERCULOSIS. AGE GROUPS FOR NEW CASES AND DEATHS.

AGE PERIODS.	NEW CASES.				DEATHS.			
	PULMONARY.		NON-PULMONARY.		PULMONARY.		NON-PULMONARY.	
	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 year	—	—	—	—	—	—	—	—
1-5 years	—	—	1	2	—	—	—	1
5-10 years ..	—	—	3	4	—	—	1	—
10-15 years ..	—	—	4	—	—	—	1	—
15-20 years ..	6	8	1	3	1	4	—	1
20-25 years ..	3	9	1	3	2	6	1	—
25-35 years ..	13	15	2	5	11	8	1	1
35-45 years ..	4	3	1	1	5	8	—	1
45-55 years ..	10	3	—	—	14	2	2	—
55-65 years ..	6	—	1	—	6	1	—	1
65 and upwards	2	—	—	1	1	—	—	1
Totals	44	38	14	19	40	29	6	6

Six (8·7 per cent.) of the sixty-nine deaths from tuberculosis of the respiratory system and seven (58·3 per cent.) of the twelve deaths from other forms of tuberculosis were of cases not notified. Reference should also be made to Table T5.

See also remarks of Medical Officer of Health on pages 58 and 59.

APPENDIX II.

REPORT OF THE ASSISTANT MEDICAL OFFICER FOR
MATERNITY AND CHILD WELFARE FOR THE YEAR 1938*To the Medical Officer of Health.*

SIR,

I beg to submit herewith my report on the maternity and child welfare work in the Borough for the year 1938.

Your obedient Servant,

E. F. BEBBINGTON.

INFANT WELFARE CENTRE,
DYCHURCH LANE, NORTHAMPTON.
APRIL, 1939.

Two additional health visitors were appointed in 1938. They commenced duties in May and August respectively. The distances covered by the health visitors had become lengthened owing to extension of property in the Borough. The new appointments were made to enable the health visitors to continue to make as many visits as possible, notwithstanding the greater area covered and also on account of a new centre which was opened at Kingsley Park in March and the resignation of Miss Islip in April.

General
Arrange-
ments

There is now one Assistant Medical Officer, seven health visitors, and two clerks (the second clerk was appointed in July, 1938). The whole time of the staff is occupied with work connected with maternity and child welfare.

The number of infant deaths was fifty-six, one less than in 1937. The infant mortality-rate was 46·6 per thousand live births registered, which is below the current rate of 53 for England and Wales (*see* Table M1, page 88).

Infant
Mortality

Premature birth again accounted for the greatest number of infant deaths; seventeen infants died owing to prematurity, three less than in 1937.

The infant deaths are classified by cause in Table M2 (page 88) and in more detail according to cause and age in Table D at the end of this volume.

The birth-rate for 1938 was 12·5, compared with 12·4 for 1937.

Notification
of Births

1,203 live births and thirty-four stillbirths were registered. 1,518 live births and sixty-two stillbirths were notified, making a total of 1,580 (*see* Table M3, page 88). Table M4 shews the sources of notification.

1,199 births were investigated by the health visitors; twenty-six of these were non-notified. They also visited thirteen other births but no information was available. The remaining births occurred either in larger houses, or the mothers, resident outside the Borough, came into the Town for their confinements and returned home later.

Investigation disclosed that sixty-six babies were born prematurely, two less than in 1937.

Stillbirths

The number of stillbirths notified was sixty-two, seventeen less than last year. Thirty-one of the sixty-two were County cases, born and notified in the Borough.

Thirty stillbirths were investigated by the health visitors, who also visited one which was non-notified. Stillbirths in 1938 were less prevalent amongst primiparæ. One only of the thirty-one stillbirths was due to twin pregnancy. This was a case of pregnancy in a primipara. Sixteen stillbirths were premature births. Two of the thirty-one were illegitimate.

Home Visitation

Visits to Expectant Mothers :—

First Visits	249
Total Visits	455

Visits to Children under One Year of Age :—

First Visits	1,216
Total Visits	5,955

Visits to Children from One to Five Years of Age :—

Total Visits	8,493
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The health visitors paid 15,678 visits in 1938. This number includes all the visits enumerated above and also extra visits, viz :—to houses where a stillbirth had occurred or a baby under one year had died, and to all cases of puerperal pyrexia, ophthalmia neonatorum, pneumonia, etc., in women and children.

Ultra-violet Ray Treatment

Ultra-violet ray treatment was continued with the usual exception of the summer months. Children under five years of age, contrary to adults or school children, can make full use in summer of natural sunlight, which is to be preferred, in most instances, to artificial light treatment. Six children were on the books at the beginning of 1938 and thirty-eight new cases were admitted to the clinic during the year, the total attendances being 766. The children were chiefly suffering from rickets and marasmus and most of them benefited from the treatment. Eighteen ceased treatment during the year and twenty-six were still under treatment at the end of December.

Manfield Orthopædic Hospital

Four beds are maintained, when occupied, at Manfield Hospital, as described on pages 67 and 68 of the 1931 report. At the beginning of January four patients were under treat-

ment. During the year seven were admitted suffering from general orthopædic conditions. One patient was transferred to the John Greenwood Shipman Convalescent Home, six were discharged, the average length of stay being 133 days, and five cases were still under treatment at the close of the year.

There were increases in the number of children under one year of age who attended at the centres for the first time, in their total attendances, and in the attendances of children from one to five years of age.

Welfare
Centres—
Statistics

Table M5 (page 89) gives the average attendances and consultations at the ten centres in the Town (another new centre was opened in March, 1938, at Kingsley Park). The total average attendance of mothers per week was 618, against 514 in 1937; of babies and toddlers 709, against 578 in 1937. The number of cases seen by the doctor per fortnightly session was 340.

The number of attendances at all centres during the year was as follows :—

(a) By Children under One Year of Age	14,588
(b) By Children between the Ages of One and Five Years	16,685

The attendance of children per session at all centres during 1938 averaged 71. In 1937 the figure was 64.

The number of children who attended at the centres for the first time during the year was :—

(a) Children under One Year of Age	694*
(b) Children between the Ages of One and Five Years	116

(*The figure 694 represents a percentage of 45·7 of the notified live births).

The number of children who were in attendance at the centres at the end of the year was :—

(a) Children under One Year of Age	572
(b) Children between the Ages of One and Five Years	1,272

The Northampton Maternity and Infant Welfare Voluntary Association reports a successful year's work for 1938. The ten centres have been well attended. The leaders are keen and enthusiastic and the attendance statistics shew that the mothers of the Town appreciate the help, educational and social as well as medical, which they receive at the centres. The new Kingsley Centre, opened in March to relieve the congestion at Broadmead and Abington Avenue, has already an average attendance of sixty, while the Broadmead Centre is still full to capacity. Three of the centres—Abington Avenue, Broadmead, and St. Giles' Street Wednesday—entered for the National

Voluntary
Work

Parentcraft Competitions and all gained honours and first-class certificates. Mrs. Chapman, of the St. Giles' Street Wednesday staff, was placed "equal first" in all England for her essay on "The Educational Value of Toddlers' Playgrounds," and for Abington Avenue Mrs. Welsh gained the Rhondda Mothercraft Silver Challenge Shield for the highest number of marks in a written examination on mothercraft.

At the Annual Meeting in April, Dr. Sloan Chesser gave an address on "The First Stage of Life" to an appreciative audience of over two hundred.

The importance of physical training to correct the deterioration in gait and posture so frequently observed in young mothers was emphasized at the National Baby Week Conference and the Voluntary Committee decided to organize "keep fit" classes for the centre mothers. These classes, under the leadership of Miss E. Jennings, C.S.M.M.G., L.P.T.C., have been held in the St. Giles' Street building and have been much appreciated by the mothers attending.

The leaving certificates presented to every mother who has brought her children regularly to a centre from birth to school age, have been greatly appreciated by the recipients. For 1938, fifty-four mothers, two with a record of thirteen years' attendance, received certificates and their names are inscribed in a special "book of honour," the gift of Councillor and Mrs. J. Jackson.

The Medical Officer of Health reports a low infant death-rate and no maternal mortality for 1938. The Voluntary Association is proud of having a share in the work which produces such a fine record and is of such inestimable value to the mothers and babies of Northampton.

Toddlers' Clinic

The clinic organised specially for toddlers (one to five years of age) is held on two Tuesdays in each month. Attendances at this clinic are included in the figures under the (b) headings in the paragraphs on page 83. Cases are referred to this clinic only by doctors and health visitors. Debilitated and under-nourished children attending are granted free milk, in accordance with the scale in operation for the Borough.

Dr. Emily H. Shaw is the Medical Officer for the toddlers' clinic. She also conducts a toddlers' session once a month at Abington Avenue Centre in addition to the ordinary sessions held there every Thursday.

Sixty-one new cases were seen at the clinic during the year and the total attendances made were 500.

Midwives

Thirty midwives notified their intention to practise. The Queen's Institute of District Nursing employed eight of these at different times and six were attached to St. Edmund's Hospital. The Inspector of Midwives paid twenty-four visits

to midwives practising independently for the purposes of inspection. She also paid two visits of inspection to the Queen's Institute of District Nursing. Medical aid was summoned by a midwife under Section 14 (1) of the Midwives Act, 1918, in 219 cases.

The Queen's nurses attended 494 cases (as maternity nurses or midwives) in 1938.

The agreement between the Queen's Institute of District Nursing and the Maternity and Child Welfare Committee for the provision of midwifery service, in accordance with the Midwives Act, 1936, was amended as from 1st August, 1938. Five midwives are now employed instead of seven and the contribution of the Council to the Institute reduced from £800 to £450 per annum.

There are nine nursing homes in the Town, three of which may admit maternity cases only. One (St. Matthew's Nursing Home) is registered for maternity, medical, and surgical cases. Thirty-three visits of inspection were paid to the nursing homes by the Assistant Medical Officer.

Maternity
Homes

The Local Authority maintains no maternity home. An arrangement is in operation whereby expectant mothers, who are abnormal cases and are found to require institutional treatment at the time of confinement, are treated in the Barratt Maternity Home. Sixty-nine cases were admitted in 1938. Normal and necessitous cases are sent into St. Edmund's Hospital. Eight cases were admitted in 1938.

The Council provides and maintains one ante-natal clinic (two sessions per week) at St. Giles' Street Centre. In addition, an ante-natal clinic is held three times a month (two Thursday mornings and one Wednesday afternoon) at the Queen's Institute of District Nursing.

Ante-natal
Work

Eighty-nine sessions were held at the St. Giles' Street Centre clinic and were attended by 229 expectant mothers (including twenty-three still attending from 1937), making 597 attendances altogether; each patient thus averaged 2.6 attendances. The percentage of total notified births (live and still) which the figure 229 represents is 14.5. This figure is lower than in reality, as, though County births occurring in the General Hospital and nursing homes are included in the total notified births, County women are excluded from the Borough clinic.

At the Queen's Institute of District Nursing, 394 attendances were made by 394 expectant mothers in forty-three sessions. The 394 mothers represent 24.9 per cent. of the total notified births.

The percentage of total notified births represented by cases attending all ante-natal clinics is 39·4, but if County births are excluded the percentage is raised to 51·4. In 1937 this figure was 36·0.

177 patients who attended the Borough clinic (1937-1938) had babies born in 1938. The corresponding number for 1937 was 162. These births include five stillbirths, one of which was premature, five deaths of infants under one month, and two deaths over one month. Three births were not traceable as the patients had removed to other districts. There was no maternal death amongst mothers attending this clinic in 1938.

Doctors and midwives generally send their patients to the ante-natal clinic by appointment and in each case a report is forwarded to the doctor or midwife concerned.

Cases in which operative measures may be thought necessary are seen by a consultant by appointment, and in emergency. Eleven cases under this category were dealt with during 1938.

In December a post-natal clinic was inaugurated, and pre-natal and post-natal cases were seen and advised at the welfare centres during the year.

A post-natal clinic is held once a month, on a Wednesday afternoon, at the Queen's Institute of District Nursing. There were twelve sessions during 1938 and sixty-three women attended, making one attendance each. Thus the average attendance per session was 5·3.

Doctors' Bills

The Maternity and Child Welfare Committee undertakes the payment of doctors' and midwives' bills in accordance with a scale adopted in October, 1935. The outstanding debts in connection with these bills are collected by a member of the staff of the Housing Department.

Dental Treatment

As in previous years, children under school age and pregnant and nursing mothers may be treated by the School Dental Officer. Two evenings each week are set apart for this. Payment for treatment is made to the Dental Clinic direct, or later by instalments at the Central Building or at the welfare centres.

Bills amounting to just under £65 were sent to twenty patients. Just over £35 was collected on these accounts and those outstanding from previous years. Just over £7 was collected in small fees for which no bills were issued. Table M6 (page 90) shews the numbers dealt with and the forms of treatment.

Milk

Applications for free milk are considered each week by the Milk Sub-Committee. Milk is granted to pregnant and nursing mothers and to children under one year of age, and in special cases to children aged one to five years, for two

months on medical and economic grounds. The health visitors have also been permitted to give milk application forms, under the above conditions, to cases requiring milk, in their opinion, on medical and economic grounds. 2,409 applications were considered by the Committee, of which 2,220 were granted and 189 refused. 132,458 pints of pasteurised milk were supplied under contract with local firms at a cost of over £1,448.

“Cow and Gate” dried milk is sold at cost price at St. Giles’ Street Centre. 5,356 pounds were sold to 180 separate customers. The cost of this was over £379, all of which was paid at the time of purchase.

Thirty-three cases of puerperal pyrexia, including sixteen non-residents, were notified. Thirty were treated at the General Hospital and three at home. One (a non-resident) died at the General Hospital from septicæmia and pelvic peritonitis.	Puerperal Pyrexia
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No maternal death occurred amongst Northampton women in 1938 (compared with two in 1937).	Maternal Deaths
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Two cases of ophthalmia were notified, compared with five in 1937. One occurred in St. Edmund’s Hospital and the other in a nursing home. Both were treated in hospital. A swab was taken in one instance and was positive to Neisser’s organism.	Ophthalmia Neonatorum
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The discharge in one case did not commence until the ninth day and the date of commencement in the other is unknown. In neither case was there a history of vaginal discharge in the mother of the child. Vision was not impaired in either case. (See Table M7, page 90).

Six babies under the age of two years died from diarrhœa and enteritis, their ages being three, four, seven, seven, nine, and twenty-one months respectively. The corresponding figure for 1937 was three. The rate was 5·0 per thousand live births registered, compared with 5·5 for England and Wales.	Diarrhœa and Enteritis
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The Maternity and Child Welfare Department administers Sections 206 to 220 of the Public Health Act, 1936, relating to foster-children. These children are supervised until they reach the age of nine years. The number of persons receiving children for reward on the register at the end of the year was thirty-nine; these had charge of forty-nine children. It was not necessary to obtain any legal order or take any proceedings under the Act during 1938.	Child Life Protection
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TABLE M1. ENGLAND AND WALES AND NORTHAMPTON, 1929-1938.
INFANT MORTALITY IN EACH YEAR OF THE DECENNium.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
England and Wales	74	60	66	65	64	59	57	59	58	53
Northampton	52.8	56.4	70.6	64.3	45.1	45.8	50.2	39.9	47.6	46.6

TABLE M2. NORTHAMPTON, 1934-1938.
INFANT MORTALITY. CAUSES OF DEATH*.

CAUSES OF DEATH.	1934	1935	1936	1937	1938
Atrophy, Debility, and Marasmus	4	2	1	4	7
Bronchitis and Pneumonia	5	11	8	14	8
Congenital Malformations	3	7	5	6	8
Convulsions	1	3	2	—	—
Diarrhoea, Enteritis, and Gastritis	7	2	1	3	5
Measles	3	—	1	2	—
Premature Birth	19	18	20	20	17
Tuberculous Diseases	1	1	—	—	—
Whooping Cough	—	2	—	—	—
All Other Causes	11	12	10	8	11
TOTAL DEATHS	54	58	48	57	56
TOTAL LIVE BIRTHS	1180	1155	1204	1197	1203
INFANT MORTALITY	45.8	50.2	39.9	47.6	46.6

*See also Table D at end of Report.

TABLE M3. NORTHAMPTON, 1938.
LIVE BIRTHS AND STILLBIRTHS REGISTERED AND NOTIFIED.

	MALES.	FEMALES.	TOTAL.
Number of Live Births Registered	615	588	1203
Number of Stillbirths Registered	18	16	34
Total Number of Births Notified	785	795	1580
Number of Live Births Notified	754	764	1518
Number of Stillbirths Notified	31	31	62

TABLE M4. NORTHAMPTON, 1938.
NOTIFICATION OF BIRTHS. SOURCES OF NOTIFICATION.

	NUMBER.	PER CENT.
Medical Practitioners	321*	20·3
Certified Midwives	1217	77·0
Parents and Others	42	2·7
Totals	1580	100·0

*Includes 171 also notified by Midwives.

TABLE M5. NORTHAMPTON, 1938.
MATERNITY AND INFANT WELFARE CENTRES. STATISTICS.

CENTRE.*	DAY OF MEETING (2.30 TO 4.30 P.M.).	AVERAGE ATTENDANCE PER WEEK.				Average Number seen by Doctor per Fortnight- ly Session.
		Mothers (incl. Expectant Mothers).	Babies.	Toddlers.	Total Babies and Toddlers.	
Abington Avenue ..	Thursdays ..	70	30	53	83	34
Broadmead	Mondays	81	48	39	87	32
Doddridge Memorial	Tuesdays	66	35	39	74	34
Far Cotton	Fridays	60	35	36	71	36
†Kingsley Park	Mondays	53	34	23	57	37
Kingsthorpe	Tuesdays	48	30	30	60	34
St. Edmund's	Fridays	56	27	36	63	34
St. Giles' Street ..	Wednesdays..	55	27	39	66	33
St. Giles' Street ..	Thursdays ..	51	22	36	58	33
St. Sepulchre's	Wednesdays..	78	49	41	90	33
	Totals	618	337	372	709	340

*A Toddlers' Clinic was also held (*see* page 84).

†Opened on 7th March, 1938.

TABLE M6. NORTHAMPTON, 1938.
SUMMARY OF DENTAL OPERATIONS.

NATURE OF OPERATION, ETC.	MOTHERS.	CHILDREN.	TOTALS.
Number seen	40	205	245
Number treated	22	191	213
Number of attendances	170	391	561
Number of teeth extracted	120	475	595
Number of administrations of local anæsthetic	38	254	292
Number of fillings	41	—	41
Number of linings	28	—	28
Number of teeth treated with nitrate of silver	5	689	694
Number of dressings	15	1	16
Number of scalings and cleansings	5	—	5
Number of artificial plates	11	—	11
Number of plate repairs	2	—	2
Number of teeth on plates and repairs	170	—	170
Number of other operations	2	—	2
Number completed	11	129	140
Number partly completed, continued to 1939	10	5	15

TABLE M7. NORTHAMPTON, 1938.

OPHTHALMIA NEONATORUM. ANALYSIS OF CASES NOTIFIED, WITH
ULTIMATE RESULT.

CASES NOTIFIED.	TREATED.		ULTIMATE RESULT.			
	AT HOME.	IN HOSPITAL.	VISION UN- IMPAIRED.	VISION IMPAIRED.	TOTAL BLINDNESS.	DIED.
2	—	2	2	—	—	—

See also Section VII. of Medical Officer of Health's Report (pages 59 to 64).

APPENDIX III.

STATISTICAL TABLES

TABLE 1. NORTHAMPTON, 1929-1938.

NATURAL INCREASE OR DECREASE OF POPULATION IN EACH YEAR OF THE DECENNIUM.

YEAR.	POPULATION.*	LIVE BIRTHS.	DEATHS.	NATURAL INCREASE (+) OR DECREASE (-).	INCREASE (+) OR DECREASE (-) PER 1,000.
1929	94180	1249	1093	+156	+1.66
1930	93460	1224	1072	+152	+1.63
1931	92970	1233	1091	+142	+1.53
1932	96730	1244	1108	+136	+1.41
1933	96630	1152	1091	+ 61	+0.63
1934	96550	1180	1096	+ 84	+0.87
1935	96700	1155	1051	+104	+1.08
1936	96300	1204	1209	— 5	—0.05
1937	96360	1197	1217	— 20	—0.21
1938	96540	1203	1071	+132	+1.37

*Resident population at mid-year estimated by Registrar-General.

TABLE 2. ENGLAND AND WALES AND NORTHAMPTON, 1929-1938.

BIRTH-RATES IN EACH YEAR OF THE DECENNIUM.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
England and Wales	16.3	16.3	15.8	15.3	14.4	14.8	14.7	14.8	14.9	15.1
Northampton	13.3	13.1	13.3	13.0	11.9	12.2	11.9	12.5	12.4	12.5

TABLE 3. ENGLAND AND WALES AND NORTHAMPTON, 1929-1938.

DEATH-RATES IN EACH YEAR OF THE DECENNIUM.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
England and Wales	13.4	11.4	12.3	12.0	12.3	11.8	11.7	12.1	12.4	11.6
Northampton (Crude	11.6	11.5	11.3	11.6	11.3	11.4	10.9	12.6	12.6	11.1
Adjusted*			11.8	11.1	10.8	10.9	10.4	12.1	12.1	10.7

*See explanation on page 11.

TABLE 4. NORTHAMPTON, 1938. METEOROLOGICAL DATA.

MONTH.	RAINFALL.			TEMPERATURE.					DIRECTION OF WIND.					BRIGHT SUNSHINE.		
	Total inches.	Greatest in 24 hours.		Days on which 0.01 in. or more fell.	Mean.	Maximum.		Minimum.		No. of Nights at or below 32 deg. F.	SW. Quadrant including W. Days.	SE. Quadrant including S. Days.	NE. Quadrant including E. Days.	NW. Quadrant including N. Days.	Hrs.	Mins.
		Depth.	Date.			Deg.	Date.	Deg.	Date.							
January ..	2.94	0.47	11	21	43.09	54.0	{ 24 28	11	32.0	1	20	2	2	7	45	10
February	0.92	?	?	14	41.79	56.0	28	14	29.5	5	8	5	11	4	53	20
March	0.19	?	?	5	49.92	66.0	20	8	32.0	1	18	2	2	9	157	40
April	0.08	0.03	2	4	47.26	65.0	1	11	31.5	1	3	0	18	9	142	25
May	1.64	0.42	28	14	53.46	72.0	22	9	31.0	1	10	6	11	4	163	40
June	1.56	0.46	28	11	60.95	78.0	{ 14 17 20 30 31	3	45.5	0	15	4	1	10	184	10
July	1.88	0.39	14	16	62.13	78.0	{ 20 30 31	6	47.2	0	21	3	0	7	115	45
August ..	4.09	1.65	12	15	63.29	81.5	1	30	46.0	0	9	5	10	7	145	45
September	2.00	0.57	27	17	58.38	75.0	13	{ 3 15 16	30	0	11	8	3	8	91	55
October ..	3.43	0.80	3	17	51.30	63.0	13	24	37.0	0	23	4	0	4	106	35.
November	2.67	?	?	19	49.43	68.0	5	29	35.5	0	24	5	0	1	67	40
December	3.08	0.50	21	22	39.71	54.5	4	20	22.5	11	8	9	5	9	45	45
Year 1938	24.48	1.65	Aug. 12	175	51.73	81.5	Aug. 1	Dec. 20	22.5	20	170*	53	63	79	1319	50

*Includes three "calm" days (one each in July, August, and October).

TABLE 5. NORTHAMPTON, 1938.

SUMMARY OF ROUTINE WORK OF THE SANITARY INSPECTORS.

	Number of Inspections, etc.	No. at which Nuisances, Defects, etc., were Found.
1.—Total Number of Inspections and Visits	23186	
2.—Number of Premises at which Nuisances were Found		1461
3.—Total Number of Houses Inspected	2439	1332
4.—Number of these Houses Repaired		1013
5.—Number of these Houses Cleansed and Whitewashed		872
6.—Number of Houses Cleansed after Certificate of M.O.H. (Secs. 83 and 167, P.H.A. 1936)		0
7.—Number of First Visits made in consequence of Complaints by Residents	497	341
8.—Notices Served	1037	
9.—Drains :—		
Tested by Smoke Test	43	36
Tested by Volatile Test	46	22
Tested by Water Test	0	0
Exposed under Sec. 48, P.H.A. 1936	0	0
Drains reported choked		151
Drains reconstructed		49
Drains repaired		45
Bath, lavatory, or sink waste pipes dis- connected from drains		0
New pans fixed to closets		47
Indoor soil pipes abolished		0
Closets supplied with flushing apparatus		8
10.—Contraventions of Byelaws :—		
Animals kept so as to be a nuisance		0
Animals kept in contravention of Byelaws ..		0
Accumulations of manure, etc., at :—		
(a) Houses		1
(b) Other premises		3
Other contraventions		0
11.—Other Nuisances :—		
Overcrowding in houses		22
Yard pavings re-laid or repaired		271
Spoutings repaired or renewed		207
New slop sinks fixed		58
Houses supplied with town water		0
Chimney observations	55	5
Miscellaneous nuisances		567

Continued on next page.

TABLE 5.—*continued.*

	Number of Inspections, etc.	No. at which Nuisances, Defects, etc., were Found.
12.—Factories Act—Inspections of:—		
Factories with mechanical power	151	17
Factories without mechanical power	167	8
Other premises	102	5
Outworkers' Premises	174	2
13.—Dairies, Cowsheds, and Milkshops :—		
Number of Inspections	772	9
Number of New Registrations	12	
14.—Bakehouses—Number of Inspections	272	21
15.—Slaughterhouses :—		
Number of Inspections while Slaughtering was in Progress	4395	33
Number of Other Inspections	269	9
16.—Other Premises where Food is Manufactured, Stored, or Exposed for Sale—Number of Inspections	1398	12
17.—Food and Drugs (Adulteration) Act—Number of Samples sent to Public Analyst	327	13
18.—Infectious Diseases—Visits to Infected Houses :—		
(a) First visits for investigation	282	
(b) Weekly visits to secure isolation	89	
(c) Visits to control disinfection	208	
19.—Number of Visits for Inspection of:—		
(a) Schools	34	8
(b) Public Lavatories	157	0
(c) Van-dwellers	22	4
(d) Cinemas, etc.	13	1
(e) Restaurant Kitchens, Teashops, etc.	18	1
(f) Shops	90	30
(g) Offensive Trades	62	0
20.—Houses Inspected under Housing Consolidated Regulations, 1925 and 1932 :—		
Number of Houses Inspected	1653	1097
Defective Houses Repaired		874
Houses Cleansed and Whitewashed		736
21.—Houses Unfit for Human Habitation reported to M.O.H. under Housing Act, 1936 :—		
(a) Section 9	0	0
(b) Section 11	8	8
(c) Section 12	0	0
(d) Section 25	149	149

TABLE 6. NORTHAMPTON, 1938.
RECONSTRUCTION OF DRAINS.

SITUATION OF PREMISES.	NO. OF HOUSES.
Abington Avenue, 31, 33	2
Bouverie Street, 3, 5	2
Great Russell Street, 39, 41, 43, 45	4
Hervey Street, 31, 33, 35, 37, 39, 41	6
Knightley Road, 9, 11 (sink gullies only)	2
Lower Adelaide Street, 105, 107, 109, 111	4
Lower Priory Street, 52	1
Marlborough Road, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33 (main drain only)	14
Raglan Street, 26, 28 (building line to sewer only)	2
St. Andrew's Road, 16, 17, 18, 19, 51, 52, 53	7
Spring Gardens, 8, 9, 10	3
Western Terrace, 9, 10	2
Total	49

TABLE 7. NORTHAMPTON, 1938.

ADMINISTRATION OF THE FACTORY AND WORKSHOP ACT, 1901, AND THE
 FACTORIES ACT, 1937 (WHICH SUPERSEDED THE ACT OF 1901 ON 1ST
 JULY, 1938).

1.—*Inspections made by the Sanitary Inspectors for purposes of provisions
 as to health.*

PREMISES.	NUMBER OF		
	INSPEC- TIONS.	WRITTEN NOTICES.	OCCUPIERS PROSE- CUTED.
Factories with mechanical power ..	151	17	—
Factories without mechanical power	167	8	—
Other Premises under the Act (in- cluding works of building and en- gineering construction but not in- cluding outworkers' premises) ..	102	5	—
Totals	420	30	—

Continued on next page.

TABLE 7.—*continued.*2.—*Defects found.*

PARTICULARS.	NUMBER OF DEFECTS			No. OF DEFECTS IN RESPECT OF WHICH PROSECUTIONS WERE INSTITUTED.
	FOUND.	REMEDIED	REFERRED TO H.M. INSPECTOR	
Want of cleanliness (s. 1)	26	26	—	—
Overcrowding (s. 2)	—	—	—	—
Unreasonable temperature (s. 3)	—	—	—	—
Inadequate ventilation (s. 4)	—	—	—	—
Ineffective drainage of floors (s. 6)	—	—	—	—
Sanitary conveniences (s. 7) { insufficient	—	—	—	—
{ unsuitable or defective	5	5	—	—
{ not separate for sexes	—	—	—	—
Other offences	5	5	—	—
Totals	36	36	—	—

3.—*Outwork in unwholesome premises (s. 108 of 1901 Act ; s. 111 of 1937 Act).*

NATURE OF WORK.	INSTANCES.	NOTICES SERVED.	PROSECUTIONS.
Wearing Apparel— Making, etc.	1	1	—

TABLE 8. NORTHAMPTON, 1938.

HOUSING ACT, 1936. HOUSES REPRESENTED DURING THE YEAR.
SUBSEQUENT ACTION AND CONDITION AT THE END OF THE YEAR.

HOUSES.	DATE OF		REMARKS.
	Representations.	Demolition Orders.	
Welford Road, 2, 4, 6, and cottage at rear of No. 81, High Street	16-11-38	—	All occupied. (Demolition Orders made on 6-3-39).
Wellingborough Rd., Abington Cottages, 9, 10, 11, and 12	13-4-38	—	No. 9 vacant ; remainder occupied. Action deferred.

TABLE 9. NORTHAMPTON, 1938.

UNSOUND FOOD VOLUNTARILY SURRENDERED AND DESTROYED.

NATURE OF FOOD.	WEIGHT.			
	TONS.	CWT.	QR.	LB.
Beef, home killed	10	11	3	24
Beef, imported	—	17	2	2
Mutton, home killed	—	10	3	21
Mutton, imported	—	—	—	22
Offal	2	5	2	27
Pork, home killed	4	3	3	1
Veal, home killed	—	4	2	12
Bacon	—	2	3	23
Eggs, imported	—	2	2	6
Fish	—	14	2	19
Fruit	—	—	1	13
Sausages	—	—	3	17
Vegetables	—	—	2	0
Total	19	16	2	19

Also 4,678 tins of food, 64 glasses of paste, 13 pheasants, 12 partridges, 7 turkeys, 5 chickens, 4 hares, 1 guinea fowl, and 1 grouse.
There were 718 surrenders, but no seizures.

TABLE 10. NORTHAMPTON, 1938.
CARCASSES INSPECTED AND CONDEMNED.

	CATTLE, EX- CLUDING COWS.	COWS.	CALVES.	SHEEP AND LAMBS.	PIGS.
Number killed (if known)		NOT	KNOWN		
Number inspected	NO	RECORD		KEPT	
<i>All diseases except Tuberculosis :—</i> Whole carcasses con- demned	4	7	8	37	31
Carcasses of which some part or organ was condemned	86	30	3	10	54
Percentage of the num- ber inspected affect- ed with disease other than tuberculosis ..	?	?	?	?	?
<i>Tuberculosis only :—</i> Whole carcasses con- demned	9	15	1	—	11
Carcasses of which some part or organ was condemned	41	73	—	—	222
Percentage of the num- ber inspected affected with tuberculosis ..	?	?	?	?	?

TABLE 11. NORTHAMPTON, 1919-1938.
NUMBER OF RATS KNOWN TO HAVE BEEN DESTROYED BY THE
OFFICIAL RAT-CATCHER.

YEARS.	NUMBER OF TAILS.
1919-1920 (fifteen months)	3,377
1921-1925	16,168
1926-1930	14,002
1931-1935	17,071
1936	3,126
1937	3,792
1938	2,073
Total	59,609

TABLE 12. NORTHAMPTON, 1938.
FOOD AND DRUGS. SAMPLES TAKEN FOR ANALYSIS.

NATURE OF SAMPLE.	INFORMAL SAMPLES.		OFFICIAL SAMPLES.	
	TOTAL NUMBER.	NO. NOT GENUINE.	TOTAL NUMBER.	NO. NOT GENUINE.
Aspirin Tablets	2	—	—	—
Boiled Sweets	1	—	—	—
Butter	—	—	18	—
Camphorated Oil	2	—	4	—
Castor Oil	—	—	2	—
Cheese	—	—	9	—
Chicken and Ham Roll..	1	—	—	—
Citrate of Magnesia	1	—	—	—
Cocoa	—	—	2	—
Coffee	—	—	2	—
Cream	7	—	—	—
Custard Powder	2	—	—	—
Dripping	—	—	2	—
Fish Cake	1	—	—	—
Fish Paste	5	—	—	—
Flour (self-raising)	2	—	2	—
Glycerine	2	—	—	—
Ground Almonds	2	—	—	—
Jam	—	—	2	—
Jelly	2	—	—	—
Lard	—	—	3	—
Lemonade Crystals	2	—	—	—
Lime Juice Cordial	2	—	—	—
Liquorice Powder	4	—	—	—
Margarine	—	—	2	—
Marmalade	—	—	2	—
Milk	—	—	205	13
Mushroom Ketchup	1	—	—	—
Olive Oil	—	—	2	—
Orange Curd	1	—	—	—
Oranges	1	—	—	—
Paregoric	2	—	—	—
Pepper	4	—	—	—
Potted Meat	—	—	2	—
Rice	3	—	—	—
Sausages	6	—	2	—
Spinach	1	—	—	—
Sponge Sandwich Mixture	1	—	—	—
Sulphur Tablets	2	—	—	—
Tapioca	1	—	—	—
Tincture of Iodine	2	—	—	—
Vinegar	1	—	2	—
Totals	64*	—	263*	13

*A total of 327 samples, 13 of which (4.0 per cent.) were found not to be genuine.

TABLE 13. NORTHAMPTON, 1927—1939.

DAILY CONSUMPTION OF MILK.

DESCRIPTION.	1927		1939	
	NUMBER OF GALLONS.	PER- CENTAGE.	NUMBER OF GALLONS.	PER- CENTAGE.
Milk sold as Ordinary :—				
Untreated	3150*	63·0	1517	20·5
Pasteurised	—	—	2332	} 31·8
Known to be otherwise heat treated before use	—	—	24	
Pasteurised and sold as such	3150	63·0	3873	52·3
Sterilised and sold as such	1700	34·0	3038	41·0
Tuberculin Tested	—	—	196	2·6
Tuberculin Tested	150	3·0	306	4·1
Totals	5000	100·0	7413	100·0
Total of heat-treated milk	1700	34·0	5590	75·4
Tuberculin Tested	150	3·0	306	4·1
Untreated Ordinary	3150*	63·0	1517	20·5

* Some of this may have been heat treated, but we have no record of the amount.

The average daily consumption of milk per person was 0·43 pint in 1927 and 0·61 in 1939.

See also paragraph on “ Milk Supply,” page 38.

TABLE 14. NORTHAMPTON, 1938.
ENTERICA, SCARLET FEVER, AND DIPHTHERIA.

Diseases.	Notifica- tions.	Attack- rates per 1,000.	Deaths.	Death- rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
Enterica	2	0·02	0	0·00	0·0	2*	100·0
Scarlet Fever	145	1·50	1	0·01	0·7	112†	77·2
Diphtheria	88	0·91	7	0·07	8·0	80‡	90·9

*Both admitted to Northampton General Hospital from outside the Borough.

†All to the Borough Infectious Diseases Hospital, Harborough Road.

‡Seventy-nine to Harborough Road Hospital direct and one via the General Hospital.

TABLE 15. NORTHAMPTON, 1938.
BOROUGH INFECTIOUS DISEASES HOSPITAL, HARBOROUGH ROAD.
CASES UNDER TREATMENT.

	Scarlet Fever.	Diph- theria.	Pneu- monia.	Measles	Totals.
Remaining at end of 1937	8	18	1	—	27
Admitted during 1938	113	84	—	1	198
Discharged during 1938	115	92	1	1	209
Died during 1938	1	5	—	—	6
Remaining at end of 1938	5	5	—	—	10

TABLE 16. NORTHAMPTON, 1938.
NUMBER OF ARTICLES DISINFECTED BY STEAM MONTH BY MONTH AT
THE DISINFECTING STATION, ST. ANDREW'S ROAD.

Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
623	405	411	255	469	336	376	310	335	368	446	259	4593

TABLE 17. NORTHAMPTON, 1911—1938.
CANCER DEATHS. AGE AND SEX INCIDENCE.

Years.	Total Deaths.	Males—Ages at Death.						Total (males).	Females—Ages at Death.						Total (females).
		Under 45	45—55	55—65	65—75	75—85	85 & over.		Under 45	45—55	55—65	65—75	75—85	85 & over.	
1911	89	4	7	8	10	6	—	35	9	13	17	13	2	—	54
1912	97	2	8	12	11	5	—	38	6	21	11	14	7	—	59
1913	94	2	13	12	16	5	—	48	3	15	7	15	4	2	46
1914	118	3	5	14	21	3	—	46	9	14	23	13	11	2	72
1915	115	5	10	13	14	2	—	44	7	11	22	19	10	2	71
1916	110	4	7	20	14	5	—	50	5	7	20	17	11	—	60
1917	96	5	5	10	12	5	—	37	8	13	14	14	10	—	59
1918	93	2	7	11	12	3	—	35	8	16	17	12	5	—	58
1919	110	4	7	19	15	5	1	51	3	13	17	14	12	—	59
1920	102	4	5	17	13	6	—	45	2	12	14	22	6	1	57
1921	104	6	6	17	17	1	—	47	7	11	13	15	11	—	57
1922	115	5	13	21	14	4	—	57	8	12	15	11	12	—	58
1923	136	2	10	24	17	6	—	59	9	17	16	25	9	1	77
1924	130	3	9	11	20	7	1	51	13	15	19	22	8	2	79
1925	140	2	17	20	19	8	2	68	8	13	15	22	13	1	72
1926	119	3	4	14	20	7	—	48	4	16	24	19	6	2	71
1927	132	7	10	21	24	8	—	70	9	10	10	25	6	2	62
1928	150	2	6	22	23	14	—	67	4	19	15	33	10	2	83
1929	148	2	11	15	19	14	2	63	9	11	25	22	14	4	85
1930	167	7	8	33	32	4	—	84	6	20	17	32	7	1	83
1931	148	3	12	20	22	9	—	66	7	18	23	15	15	4	82
1932	136	3	6	13	26	8	1	57	2	15	23	27	10	2	79
1933	175	8	8	22	25	15	—	78	7	12	14	42	19	3	97
1934	179	5	7	22	32	19	3	88	4	14	21	27	17	8	91
1935	161	2	5	14	32	17	3	73	3	16	23	28	15	3	88
1936	168	5	8	20	31	20	2	86	10	13	19	19	18	3	82
1937	179	4	6	33	23	18	1	85	7	13	23	30	16	5	94
1938	157	2	12	20	26	14	1	75	3	18	22	27	12	—	82

TABLE 18. NORTHAMPTON, 1931—1938.

CANCER DEATHS. ANALYSIS ACCORDING TO THE PART OF THE BODY PRINCIPALLY AFFECTED.

Years.	Total Deaths.	Males.							Females.								
		A	B	C	G	H	I	Total.	A	B	C	D	E	F	H	I	Total.
1931	148	5	39	5	11	1	5	66	—	49	3	11	2	14	—	3	82
1932	136	1	35	7	11	—	3	57	1	34	4	13	4	19	1	3	79
1933	175	8	45	11	10	2	2	78	—	48	1	16	7	18	—	7	97
1934	179	9	48	9	14	1	7	88	2	48	4	11	1	19	1	5	91
1935	161	7	48	7	8	—	3	73	2	45	1	12	5	18	1	4	88
1936	168	6	55	8	15	—	2	86	4	44	1	15	3	10	—	5	82
1937	179	3	57	7	10	—	8	85	3	47	5	8	5	19	1	6	94
1938	157	4	50	9	8	—	4	75	—	36	3	14	6	20	—	3	82

A — Cancer of Buccal Cavity and Pharynx ;
 B — Digestive Organs and Peritoneum ;
 C — Respiratory Organs ;
 D — Uterus ;
 E — Other Female Genital Organs ;
 F — Breast ;
 G — Male Genito-urinary Organs ;
 H — Skin ;
 I — Other or Unspecified Organs.

TABLE 19. NORTHAMPTON, 1938.

CLINICAL BACTERIOLOGY. NUMBER OF SUSPECTED CASES IN WHICH EXAMINATION WAS MADE AND THE NUMBER AND NATURE OF THE REPORTS RECEIVED IN CONNECTION WITH THESE.

DIPHTHERIA— Throat and Nose Secretions.	TYPHOID AND PARATYPHOID FEVERS— Dreyer's Tests, etc.				TUBERCULOSIS— Sputum, Urine, etc.				OTHER CONDITIONS.				TOTALS.						
	No. of Suspected Cases.		Reports received.		No. of Suspected Cases.		Reports received.		No. of Suspected Cases.		Reports received.		No. of Suspected Cases.		Reports received.				
Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.		
709	221	1080	1301	8	6	3	9	439	103	442	545	3	1	4	5	1159	331	1529	1860

The above Table does not take into account the reports made in connection with the venereal diseases scheme.

TABLE 20. NORTHAMPTON, 1881-1938.
MATERNAL MORTALITY.

YEARS.	RATES. *	YEARS.	RATES. *
1881	4.15	1921	3.19
1882	3.98	1922	1.82
1883	2.57	1923	4.21
1884	4.16	1924	4.56
1885	4.82	1925	6.12
1886	4.70	1926	6.88
1887	7.53	1927	5.46
1888	7.16	1928	3.06 (2.94)
1889	2.56	1929	3.20 (3.08)
1890	3.66	1930	5.71 (5.54)
1891	6.17	1931	4.05 (3.92)
1892	4.81	1932	2.41 (2.34)
1893	7.08	1933	0.87 (0.84)
1894	6.48	1934	5.93 (5.73)
1895	2.60	1935	4.33 (4.17)
1896	5.00	1936	3.32 (3.20)
1897	2.28	1937	1.67 (1.60)
1898	3.54	1938	0.00 (0.00)
1899	5.39		
1900	7.76	1881—1885	3.93
		1886—1890	5.11
1901	6.40	1891—1895	5.42
1902	3.96	1896—1900	4.73
1903	5.47		
1904	2.38	1901—1905	4.25
1905	2.58	1906—1910	3.66
1906	2.02		
1907	4.60	1911—1915	4.60
1908	4.89	1916—1920	3.36
1909	4.60		
1910	2.11	1921—1925	3.91
		1926—1930	4.87
1911	5.70		
1912	4.13	1931—1935	3.52 (3.40)
1913	2.68		
1914	4.85	1881—1890	4.52
1915	5.70	1891—1900	5.10
1916	3.70	1901—1910	3.96
1917	2.72	1911—1920	4.02
1918	5.33	1921—1930	4.33
1919	2.83		
1920	2.67		

*The maternal mortality is calculated on one thousand live births; the rates shewn in brackets from 1928 onwards are expressed per thousand total (live and still) births.

TABLE A.

COUNTY BOROUGH OF NORTHAMPTON.
Vital Statistics during 1938 and Previous Years.

Year.	Total Population estimated to Middle of each Year.	Births.			Total Deaths registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.		Number.	Rate.	Non-residents registered in the District.	Residents not registered in the District.	Under One Year.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Live Births.	Number.	Rate.
1906	88610	1985	1985	22·4	1108	12·5	77	22	240	120·9	1061	12·0
1907	88915	1956	1956	22·0	1209	13·6	98	37	235	120·1	1151	12·9
1908	89223	2043	2043	22·9	1192	13·4	93	32	198	96·9	1131	12·7
1909	89534	1957	1957	21·9	1332	14·9	84	46	215	109·9	1294	14·5
1910	89843	1900	1900	21·1	1177	13·1	84	36	209	110·0	1129	12·6
1911	90152	1930	1931	21·4	1240	13·8	86	46	250	129·5	1200	13·3
1912	90467	1932	1935	21·4	1172	13·0	120	45	140	72·4	1097	12·1
1913	90793	1868	1868	20·6	1233	13·6	114	61	175	93·7	1180	13·0
1914	91123	1854	1857	20·4	1331	14·6	133	55	164	88·3	1253	13·8
1915	91123	1748	1754	19·2	1562	17·3	109	83	236	134·5	1536	17·0
1916	93709	1883	1893	20·2	1206	14·0	116	58	127	67·1	1148	13·3
1917	91932	1466	1471	16·0	1217	14·8	128	86	128	87·0	1175	14·2
1918	90884	1316	1313	14·4	1426	17·6	122	81	121	92·2	1385	17·1
1919	92653	1432	1411	15·2	1301	14·6	137	54	116	82·2	1218	13·7
1920	92950	2318	2248	24·2	1137	12·3	130	40	166	73·8	1047	11·3
1921	92300	1924	1881	20·4	1022	11·1	123	65	124	65·9	964	10·4
1922	92950	1697	1646	17·7	1108	11·9	116	54	86	52·2	1046	11·3
1923	93230	1723	1662	17·8	1177	12·6	140	49	95	57·2	1086	11·6
1924	93800	1591	1534	16·4	1143	12·2	149	42	80	52·1	1036	11·1
1925	93970	1531	1471	15·6	1229	13·1	167	54	98	66·6	1116	11·9
1926	93740	1393	1309	14·0	1163	12·4	174	75	72	55·0	1064	11·4
1927	93260	1362	1281	13·7	1248	13·4	170	46	78	60·9	1124	12·0
1928	94270	1366	1308	13·9	1204	12·8	207	63	70	53·5	1060	11·3
1929	94180	1332	1249	13·3	1269	13·5	226	50	66	52·8	1093	11·6
1930	93460	1334	1224	13·1	1217	13·0	193	48	69	56·4	1072	11·5
1931	92970	1307	1233	13·3	1243	13·4	205	53	87	70·6	1091	11·8
1932	96730	1326	1244	13·0	1265	13·2	207	50	80	64·3	1108	11·6
1933	96630	1236	1152	11·9	1277	13·2	236	50	52	45·1	1091	11·3
1934	96550	1298	1180	12·2	1344	13·9	289	41	54	45·8	1096	11·4
1935	96700	1301	1155	11·9	1311	13·6	298	38	58	50·2	1051	10·9
1936	96300	1419	1204	12·5	1448	15·0	298	59	48	39·9	1209	12·6
1937	96360	1518	1197	12·4	1465	15·2	302	54	57	47·6	1217	12·6
1938	96540	1556	1203	12·5	1294	13·4	283	60	56	46·6	1071	11·1

This Table is arranged to shew the gross births and deaths in the district and the births and deaths properly belonging to it, with the corresponding rates.

From 1915 to 1931 the death-rates are calculated on the estimated civil populations supplied by the Registrar-General for that purpose.

The birth-rate and death-rate for 1932 are calculated on a mean population of 95,670 owing to the Borough extension on 1st April, 1932.

TABLE B.
COUNTY BOROUGH OF NORTHAMPTON.
Cases of Notifiable Diseases during the Year 1938.

NOTIFIABLE DISEASES.	NUMBER OF CASES NOTIFIED.													CASES NOTIFIED IN EACH WARD.										Cases Admitted to Borough Hospitals.	Total Deaths (see Table C).		
	ALL AGES.	AGES (IN YEARS).												Castle.	Delapre.	Kingsley.	Kingsthorpe.	St. Crispin's.	St. Edmund's.	St. George's.	St. James'.	St Michael's.	South.			Spencer.	Weston.
		0-	1-	2-	3-	4-	5-	10-	15-	20-	35-	45-	65-														
Acute Poliomyelitis	2	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	
Cerebro-spinal Fever	5	2	—	—	1	—	1	—	—	—	1	—	—	—	—	—	1	—	—	—	—	3	—	—	—	1	
Diphtheria	88	—	4	4	5	4	41	16	6	6	1	1	—	2	3	6	16	2	18	7	5	11	3	8	7	80	7
Enterica	2	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—
Erysipelas	25	—	—	—	—	—	—	1	1	3	2	13	5	3	3	3	2	2	1	1	—	2	3	3	2	2*	1
Malaria (contracted abroad)	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Ophthalmia Neonatorum	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—
Pneumonia	120	5	8	2	4	1	12	5	10	14	10	38	11	16	9	16	8	15	7	6	12	10	7	7	7	5†	47‡
Puerperal Pyrexia	33	—	—	—	—	—	—	—	2	28	3	—	—	1	1	1	2	6	—	2	—	1	17	—	2	—	—
Scarlet Fever	145	—	2	7	15	15	91	7	3	4	—	1	—	7	6	24	2	12	4	13	7	27	8	9	26	112	1
Tuberculosis :— Respiratory	76	—	—	—	—	—	—	—	14	39	7	14	2	7	2	4	6	9	6	6	12	3	7	6	8	54 ||	69
Other Forms	27	—	—	2	—	—	6	3	3	10	2	1	—	3	—	2	5	3	1	4	3	1	1	3	1	6§	12
Totals	526	10	14	15	25	20	151	33	39	105	27	69	18	39	24	57	42	50	37	39	40	55	53	36	54	259	138

*Both admitted to St. Edmund's Hospital.

†All to St. Edmund's Hospital.

‡Five of these were from influenzal pneumonia.

||Forty-one to Welford Road Hospital and thirteen to Creaton Sanatorium.

§Six to Manfield Orthopædic Hospital.

The above figures take no account of corrections in diagnosis. (See Section VI. of this Report for further information).

INSTITUTIONS :—(1) Harborough Road Infectious Diseases Hospital (85 beds, allowing 144 sq. ft. per bed) ;

(2) Smallpox Hospital, Mere Way (48 beds, allowing 144 sq. ft. per bed) ;

(3) Welford Road Tuberculosis Hospital (32 beds) ;

(4) St. Edmund's Hospital (Public Assistance Institution) (191 beds) ;

(5) Creaton Sanatorium, Northampton (15 beds reserved for Northampton County Borough) ;

(6) Manfield Orthopædic Hospital, Northampton (20 beds available for surgical tuberculosis cases).

TABLE C.

COUNTY BOROUGH OF NORTHAMPTON.

Causes of Death at Different Periods of Life during the Year 1938.

CAUSES OF DEATH.		NETT DEATHS AT THE SUBJOINED AGES (IN YEARS) OF " RESIDENTS "														Total Deaths whether of Residents or Non-Residents in Institutions in the District.
		ALL AGES.			0-	1-	2-	5-	15-	25-	35-	45-	55-	65-	75-	
		Total.	M.	F.												
ALL CAUSES	Certified	1064	555	509	55	2	9	24	34	27	53	111	191	270	288	627
	Uncertified	7	3	4	1	—	—	—	—	—	—	—	—	4	2	—
1.	Typhoid and Paratyphoid Fevers	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
2.	Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3.	Scarlet Fever	1	1	—	—	—	—	1	—	—	—	—	—	—	—	1
4.	Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5.	Diphtheria	7	3	4	—	—	—	7	—	—	—	—	—	—	—	7
*6.	Influenza	7	5	2	—	—	—	—	—	—	—	2	2	2	1	1
7.	Encephalitis Lethargica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8.	Cerebro-spinal Fever	1	1	—	—	1	—	—	—	—	—	—	—	—	—	1
9.	Tuberculosis of Respiratory System	69	40	29	—	—	—	—	13	20	12	16	7	1	—	10
*10.	Other Tuberculous Diseases	12	6	6	—	—	1	2	2	2	1	2	1	—	1	18
11.	Syphilis	2	—	2	—	—	—	—	—	—	2	—	—	—	—	2
12.	General Paralysis of the Insane, Tabes Dorsalis	2	2	—	—	—	—	—	—	—	1	—	1	—	—	—
13.	Cancer, Malignant Disease	157	75	82	—	—	—	—	—	—	5	30	42	53	27	97
14.	Diabetes	18	9	9	—	—	—	1	—	—	—	—	9	7	1	22
15.	Cerebral Hæmorrhage, etc.	72	32	40	1	—	—	1	—	—	3	3	12	25	27	23
16.	Heart Disease	338	163	175	—	—	1	4	—	1	6	16	54	109	147	116
17.	Aneurysm	1	—	1	—	—	—	—	—	—	—	—	—	—	1	2
*18.	Other Circulatory Diseases	51	27	24	—	—	—	—	1	—	1	3	4	18	24	21
19.	Bronchitis	26	16	10	2	—	1	—	1	—	—	4	3	4	11	7
*20.	Pneumonia (all forms)	42	24	18	6	—	1	2	2	1	4	6	8	4	8	34
21.	Other Respiratory Diseases	11	6	5	—	—	1	—	1	—	—	2	3	4	—	10
22.	Peptic Ulcer	9	7	2	—	—	—	—	—	1	—	4	3	1	—	18
23.	Diarrhœa, etc.	8	5	3	5	1	—	—	1	—	—	—	—	1	—	6
24.	Appendicitis	5	5	—	—	—	1	—	1	—	—	1	1	1	—	19
25.	Cirrhosis of Liver	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
26.	Other Diseases of Liver, etc.	3	1	2	—	—	—	—	—	—	—	—	—	1	2	4
27.	Other Digestive Diseases	16	9	7	—	—	1	—	—	—	1	—	7	6	1	17
28.	Acute and Chronic Nephritis	34	22	12	—	—	—	—	—	—	2	5	8	11	8	17
29.	Puerperal Sepsis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
30.	Other Puerperal Causes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
31.	Congenital Debility, Premature Birth, Malformations, etc.	39	24	15	39	—	—	—	—	—	—	—	—	—	—	29
32.	Senility	15	6	9	—	—	—	—	—	—	—	—	—	2	13	—
33.	Suicide	20	13	7	—	—	—	—	2	2	4	5	2	3	2	4
34.	Other Violence	26	16	10	—	—	—	—	4	—	4	7	4	2	5	39
*35.	Other Defined Causes	77	39	38	3	—	2	6	6	—	7	3	20	19	11	94
36.	Causes Ill-defined or Unknown ..	2	1	1	—	—	—	—	—	—	—	2	—	—	—	2
Totals		1071	558	513	56	2	9	24	34	27	53	111	191	274	290	627
*Sub-entries included in above figures	6 (a) Influenzal Pneumonia	5	4	1	—	—	—	—	—	—	—	2	2	—	1	—
	10 (a) Tuberculous Meningitis	4	1	3	—	—	1	1	1	1	—	—	—	—	—	9
	18 (a) Arterio-sclerosis	46	23	23	—	—	—	—	—	—	1	2	4	16	23	19
	20 (a) Broncho-pneumonia	21	9	12	5	—	1	—	1	1	1	1	3	2	6	20
	35 (a) Erysipelas	1	—	1	—	—	—	—	—	—	—	—	—	—	1	2
	(b) Rheumatic Fever	5	3	2	—	—	—	3	—	—	1	—	1	—	—	2
	(c) Meningitis	4	4	—	1	—	—	2	—	—	1	—	—	—	—	8

NETT DEATHS REGISTERED.

M.

F.

TOTALS.

DEATH-RATES.

First Quarter	195	144	339	..	14.0
Second Quarter	130	140	270	..	11.2
Third Quarter	108	102	210	..	8.7
Fourth Quarter	125	127	252	..	10.4
Totals (52 weeks)	558	513	1071	..	11.1

TABLE D.

COUNTY BOROUGH OF NORTHAMPTON.

INFANT MORTALITY DURING THE YEAR 1938.

Nett Deaths from stated Causes at various Ages under One Year.

CAUSES OF DEATH.		Under 1 week.	1 week and under 2 weeks.	2 weeks and under 3 weeks.	3 weeks and under 4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under 1 year.
ALL CAUSES	Certified	24	7	4	1	36	4	5	7	3	55
	Uncertified	—	—	—	—	—	—	1	—	—	1
1.	Smallpox	—	—	—	—	—	—	—	—	—	—
2.	Chickenpox	—	—	—	—	—	—	—	—	—	—
3.	Measles	—	—	—	—	—	—	—	—	—	—
4.	Scarlet Fever	—	—	—	—	—	—	—	—	—	—
5.	Whooping Cough	—	—	—	—	—	—	—	—	—	—
6.	Diphtheria	—	—	—	—	—	—	—	—	—	—
7.	Erysipelas	—	—	—	—	—	—	—	—	—	—
8.	Tuberculous Meningitis	—	—	—	—	—	—	—	—	—	—
9.	Abdominal Tuberculosis	—	—	—	—	—	—	—	—	—	—
10.	Other Tuberculous Diseases	—	—	—	—	—	—	—	—	—	—
11.	Meningitis (<i>not Tuberculous</i>)	—	—	—	—	—	—	—	—	1	1
12.	Convulsions	—	—	—	—	—	—	—	—	—	—
13.	Laryngitis	—	—	—	—	—	—	—	—	—	—
14.	Bronchitis	—	—	1	—	1	—	—	1	—	2
15.	Pneumonia (all forms)	—	—	—	—	—	—	3	2	1	6
16.	Diarrhoea	—	—	—	—	—	—	—	—	—	—
17.	Enteritis	—	—	—	—	—	—	2	2	1	5
18.	Gastritis	—	—	—	—	—	—	—	—	—	—
19.	Syphilis	—	—	—	—	—	—	—	—	—	—
20.	Rickets	—	—	—	—	—	—	—	—	—	—
21.	Suffocation, overlaying	—	—	—	—	—	—	—	—	—	—
22.	Injury at Birth	2	—	—	—	2	—	—	—	—	2
23.	Atelectasis	3	1	—	—	4	—	—	—	—	4
24.	Congenital Malformations	2	1	—	1	4	3	—	1	—	8
25.	Premature Birth	14	2	1	—	17	—	—	—	—	17
26.	Atrophy, Debility, and Marasmus ..	3	1	2	—	6	1	—	—	—	7
27.	Other Causes	—	2	—	—	2	—	1	1	—	4
Totals		24	7	4	1	36	4	6	7	3	56

		Live Births Registered.					Nett Deaths Registered.					Infant Death-rates.		
		M.	F.	Total.			M.	F.	Total.			M.	F.	Total.
Legitimate	..	594	571	1165	..		33	22	55	..		55·6	38·5	47·2
Illegitimate	..	21	17	38	..		—	1	1	..		—	58·8	26·3
Totals	..	615	588	1203	..		33	23	56	..		53·7	39·1	46·6

